SIMRAD

GO7
Operator Manual

ENGLISH

simrad-yachting.com

Preface

Disclaimer

As Navico is continuously improving this product, we retain the right to make changes to the product at any time which may not be reflected in this version of the manual. Please contact your nearest distributor if you require any further assistance.

It is the owner's sole responsibility to install and use the equipment in a manner that will not cause accidents, personal injury or property damage. The user of this product is solely responsible for observing safe boating practices.

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Navico product references

This manual can refer to the following Navico products:

- Broadband Sounder™ (Broadband Sounder)
- DownScan Imaging™ (DownScan)
- DownScan Overlay™ (Overlay)
- GoFree™ (GoFree)
- SonicHub® (SonicHub)

Copyright

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Warranty

The warranty card is supplied as a separate document.

In case of any queries, refer to the brand website of your display or system: simrad-yachting.com.

Regulatory statements

This equipment is intended for use in international waters as well as coastal sea areas administered by countries of the E.U. and E.E.A.

The GO7 complies with:

- CE under R&TTE directive 1999/5/EC
- The requirements of level 2 devices of the Radiocommunications (Electromagnetic Compatibility) standard 2008

The relevant Declaration of conformity is available in the GO7 section on the following website: simrad-yachting.com.

About this manual

This manual is a reference guide for operating the GO7. It assumes that all equipment is installed and configured, and that the system is ready to use.

The manual assumes that the user has basic knowledge of navigation, nautical terminology and practices.

Important text that requires special attention from the reader is emphasized as follows:

➔ ***Note:*** Used to draw the reader's attention to a comment or some important information.

⚠ Warning: Used when it is necessary to warn personnel that they should proceed carefully to prevent risk of injury and/or damage to equipment/ personnel.

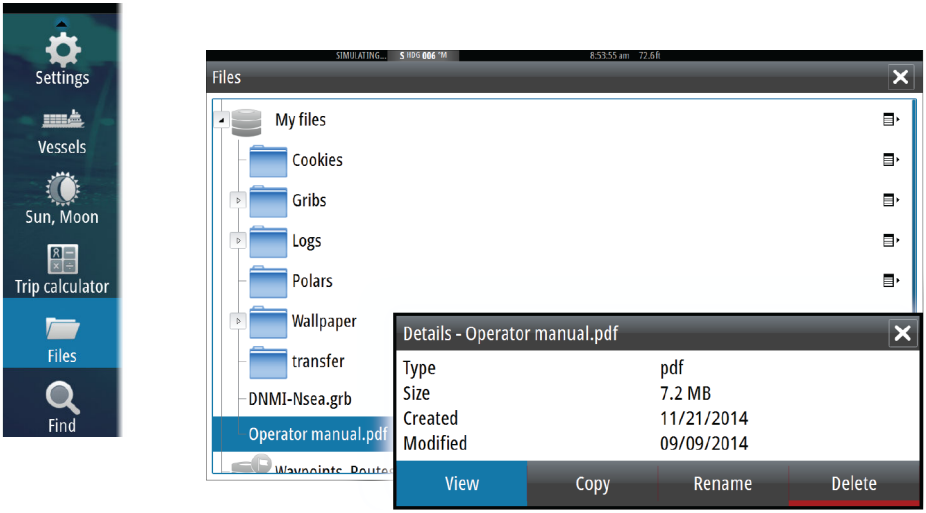
Manual version

This manual is written for the GO7 software version 1.0. The manual is continuously updated to match new software releases. The latest available manual version can be downloaded from simrad-yachting.com.

Viewing the manual on the screen

The pdf viewer included in the GO7 makes it possible to read the manuals and other pdf files on the screen. Manuals can be downloaded from simrad-yachting.com.

The manuals can be read from a card inserted in the card reader or copied to the unit's internal memory.



Use the menu options and on-screen buttons to maneuver in the pdf file as described below:

- Search, Goto page, Page Up and Down
  Select the relevant panel button.
- Scroll pages
  Drag finger on the screen in any direction.
- Panning on the page
  Drag finger on the screen in any direction.
- Zoom In/Out
  Select the relevant panel button.
- Exit the pdf viewer
  Select the **X** in the upper right corner of the panel.

The Software version

The software version currently on this unit can be found in the About dialog. The About dialog is available in the System Settings.

For information regarding upgrading your software, refer to *"Software upgrades"* on page 110.

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1 Introduction

The Home page

The **Home** page is accessed from any operation by selecting the **Home** button in the upper left corner of a panel.

HOME

1 Tools
Select a button to access dialogs used for carrying out a task, or for browsing stored information.

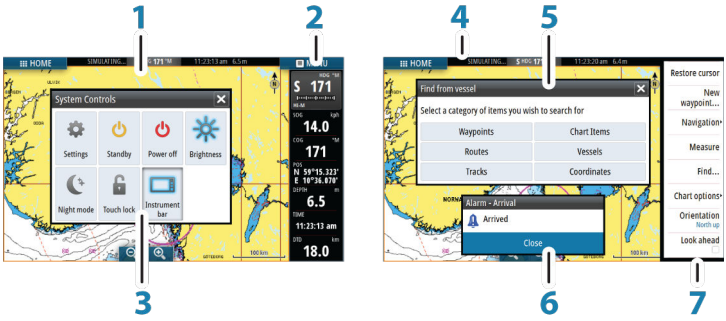
2 Applications
Select a button to display the application as a full page panel. Press and hold a button to display pre-configured split page options for the application.

3 Close button
Select to exit the Home page and return to the previous active page.

4 Favorites
Select a button to display the panel combination.
Press and hold a favorite button to enter edit mode for the Favorites panel.

5 **Man Over Board (MOB) button**
Select to save a Man Over Board (MOB) waypoint at the current vessel position.

Application pages



Each application connected to the system is presented on panels. The application can be presented as a full page, or in combination with other panels in a multiple panel page.

All application pages are accessed from the **Home** page.

1 **Application panel**

2 **Instrument bar**
Navigation and sensor information. The bar can be turned off and it can be configured by the user.

3 **System controls dialog**
Quick access to basic system settings.
Display the dialog by a short press on the **Power** key or by swiping down from top of the screen.

4 **Status bar**

5 **Dialog**
Information to or input from the user.

6 **Alarm message**
Displayed if dangerous situations or system faults occur.

7 **Menu**
Panel specific menu.
Display the menu by selecting the **MENU** panel button.

Split pages

You can have up to 4 panels on each page.

2 panels page

3 panels page

4 panels page

Panel sizes in a split page can be adjusted from the **System Controls** dialog.

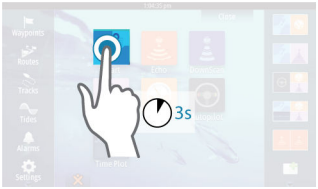
→ ***Note:*** Mercury features, if enabled, do not allow split pages.

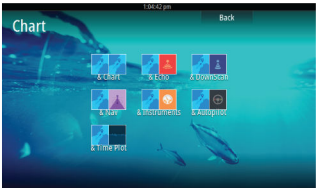
Pre-configured split pages

Each full screen application has several pre-configured split pages, featuring the selected application combined with each of the other panels.

→ ***Note:*** The number of pre-configured split pages cannot be changed, and the pages cannot be customized or deleted.

Access a pre-configured split page by pressing and holding the main panel button.





Favorite pages

All preconfigured favorite pages can be modified and deleted, and you can create your own. You can have a total of 12 favorite pages.

For more information, refer to *"Adding new favorite pages"* on page 25.

Integration of 3rd party devices

Several 3rd party devices can be connected to the GO7. The applications are displayed on separate panels or integrated with other panels.

A device connected to the NMEA 2000 network should automatically be identified by the system. If not, enable the feature from the advanced option in the System settings dialog.

The 3rd party device is operated by using menus and dialogs as on other panels.

This manual does not include specific operation instructions for any 3rd party device. For features and functionality, refer to the documentation included with the 3rd party device.

Mercury VesselView integration

Mercury VesselView SmartCraft data display and interaction are enabled through the GO7 when a VesselView 7 or VesselView 4 gateway device is present on the NMEA 2000 network.

A Mercury icon appears on the **Home** page when the device is available.

FUSION-Link integration

FUSION-Link devices connected to the NMEA 2000 network can be controlled from the GO7 system.

The FUSION-Link devices appear as additional sources when using the audio function. No additional icons are available.

Refer to *"Audio"* on page 97 for more information.

BEP CZone integration

The GO7 integrates with BEP's CZone system used for controlling and monitoring a distributed power system on your vessel.

The CZone icon is available in the Tools panel on the **Home** page when a CZone system is available on the network.

A separate manual is provided with your CZone system. Refer to this documentation and to the GO7 Installation manual for how to install and configure the CZone system.

CZone dashboard

When the CZone is installed and configured, an additional CZone dashboard is added to the Instruments panels.

You switch between a panel's dashboards by selecting the left and right arrow symbols or by selecting the dashboard from the menu.

Editing a CZone dashboard

You can customize a CZone dashboard by changing the data for each of the gauges. Available editing options depend on the type of gauge and which data sources that are connected to your system.

For more information, refer to *"Instrument panels"* on page 95.

GoFree wireless

The GO7 includes built-in wireless functionality that lets you use a wireless device to remotely view (phone and tablet) and control the system (tablet only). The system is controlled from the wireless device by Apps downloaded from their relevant Application store.

Configuration and setup are described in the GO7 Installation manual.

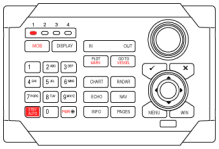
→ ***Note:*** For safety reasons, Autopilot and CZone functions cannot be controlled from a wireless device.

Operating the system with a wireless device

When remote control is accepted, the active page is mirrored to the wireless device.

The image on the wireless device includes softkeys used for operating the GO7 system.

Remote controllers



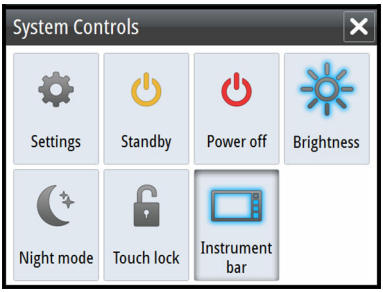
You can connect an OP40 to the network and remotely control the GO7.

A separate manual is included with the remote controller.

2 Basic operation

System Controls dialog

The System Controls dialog provides quick access to basic system settings. You display the dialog by making a short press on the **Power** key. The icons displayed on the dialog can vary. For example, the adjust splits option is only available if you are viewing a split page when you open the **System Controls** dialog.



Activating functions

Select the icon of the function you want to set or toggle on or off. For those functions that toggle on and off, a highlighted icon indicates the function is activated, as shown in the Instrument bar icon above.

Turning the system on and off

You turn the system on and off by pressing and holding the **Power** key. You can also turn the unit off from the **System Controls** dialog.

If the **Power** key is released before the shut-down is completed, the power off process is cancelled.

First time startup

The first time the unit is started and after a master reset, the system runs through an automatic start-up sequence, including language setup and automatic data source selection.

You can select to interrupt this sequence and later configure the system yourself.

Standby mode

In Standby mode, the Sonar and the backlight for screen and keys are turned off to save power. The system continues to run in the background.

You select Standby mode from the **System Controls** dialog.

Switch from Standby mode to normal operation by a short press on the **Power** key.

Display illumination

Brightness

The display backlighting can be adjusted at any time from the **System Controls** dialog. You can also cycle the preset backlight levels by short presses on the **Power** key.

Night mode

The night mode option optimizes the color palette and backlight for low light conditions.

→ ***Note:*** Details on the chart may be less visible when the Night mode is selected!

Locking the touchscreen

You can temporarily lock a touchscreen to prevent accidental operation of the system. Lock the touchscreen when large amounts of water are on the screen, for example, in heavy seas and weather. This feature is also useful when cleaning the screen while the unit is turned on.

You lock the touchscreen from the **System Controls** dialog.

You remove the lock function by a short press on the **Power** key.

Using menus and dialogs

Menus
You display a page menu by selecting the **MENU** button in the upper right corner of the page.

- Activate a menu item and toggle on/off an option by selecting it
- Adjust a slide bar value by either:
  - dragging the slide bar
  - selecting the **+** or **-** icons

Select the **Back** menu option to return to the previous menu level, and then exit.

You can make the menu slide away by tapping the screen outside the menu area, or by pressing the **MENU** button. When you re-press the **MENU** button, the menu opens in the same status it had before it closed.

The status of the cursor (active vs. inactive) changes the menu options.

Selecting pages and panels

Selecting a page

- Select a full page panel by selecting the relevant application button on the **Home** page
- Select a favorite page by selecting the relevant favorite button
- Select a predefined split panel by pressing and holding the relevant application icon

Select active panel
In a multiple panel page, only one panel can be active at a time. The active panel is outlined with a border.

You can only access the page menu of an active panel.

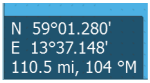
You activate a panel by tapping it.

Using the cursor on the panel

The cursor can be used to measure a distance, to mark a position, and to select items.

By default, the cursor is not shown on the panel.

Position the cursor by tapping the desired location on the screen.



When the cursor is active, the cursor position window is displayed.

To remove the cursor and cursor elements from the panel, select the **Clear cursor** option.

GoTo cursor

You can navigate to a selected position on the image by positioning the cursor on the panel, then using the **Goto Cursor** option in the menu.

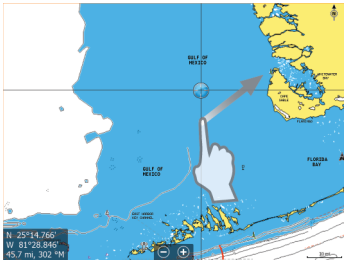
The Cursor assist function

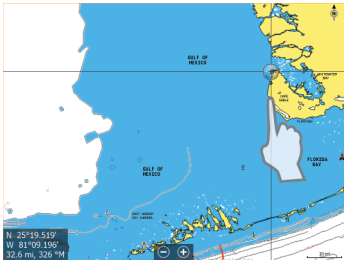
The cursor assist function allows for fine tuning and precision placement of the cursor without covering details with your finger.

Press and hold your finger on the screen to switch the cursor symbol to a selection circle, appearing above your finger.

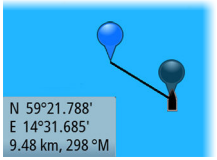
Without removing your finger from the screen, drag the selection circle over the desired item to display item information.

When you remove your finger from the screen the cursor reverts to normal cursor operation.





Measuring distance



The cursor can be used to measure the distance between your vessel and a selected position, or between 2 points on the chart panel.

1. Position the cursor on the point from where you want to measure the distance.
2. Start the measure function from the menu.
   - The measuring icons appear with a line drawn from the vessel center to the cursor position, and the distance is listed in the cursor information window.
3. You can reposition the measuring points by dragging either icon as long as the measuring function is active.

→ ***Note:*** The bearing is always measured from the grey icon to the blue icon.

You can also start the measuring function without an active cursor. Both measuring icons are then initially located at the vessel position. The grey icon follows the vessel as the vessel moves, while the blue icon remains at the position given when you activated the function.

You terminate the measuring function by selecting the **Finish measuring** menu option.

Creating a Man Overboard waypoint

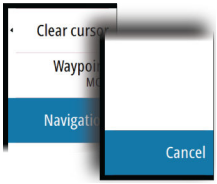
If an emergency situation should occur, you can position a Man Overboard (MOB) waypoint at the vessel's current position by selecting the **MOB** button on the **Home** page.

When you activate the MOB function the following actions are automatically performed:

- a MOB waypoint is positioned at the vessel's position
- the display switches to a zoomed chart panel, centered on the vessel's position
- the system displays navigation information back to the MOB waypoint

Multiple MOB waypoints are saved by repeatedly pressing the **MOB** buttons. The vessel continues to show navigation information to the initial MOB waypoint. Navigation to subsequent MOB waypoints needs to be done manually.

Cancel navigation to MOB



The system continues to display navigational information towards the MOB waypoint until you cancel the navigation from the menu.

Delete a MOB waypoint

1. Select the MOB waypoint to activate it
2. Select the MOB waypoint's pop-up to display the MOB waypoint dialog
3. Select the delete option in the dialog.

A MOB waypoint can also be deleted from the menu when it is activated.

Screen capture

You need to turn on the Screen capture option in the System Settings dialog to be able to take a screenshot on a touch screen. When the function is activated, you can take a screenshot on a touch screen by double-selecting the title bar of an open dialog, or by double-selecting the status bar if no dialog is open.

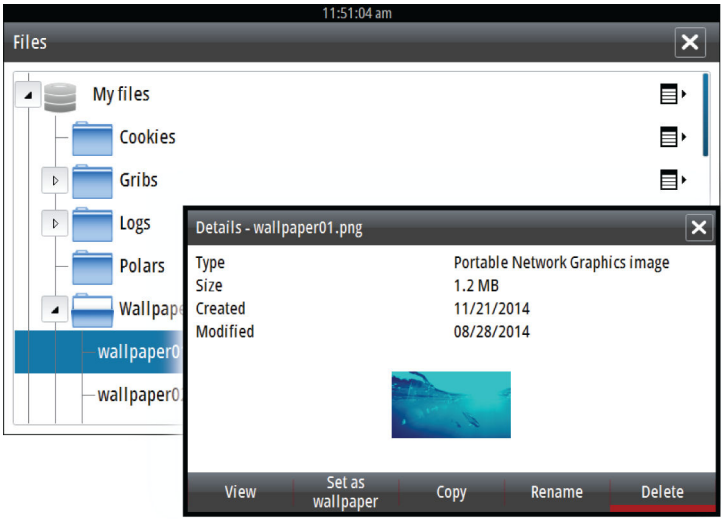
Refer to *"Tools"* on page 106 for how to view files.

3 Customizing your system

Customizing the Home page wallpaper

The Home page's wallpaper can be customized. You can select one of the pictures included with the system, or you can use your own picture in .jpg or .png format.

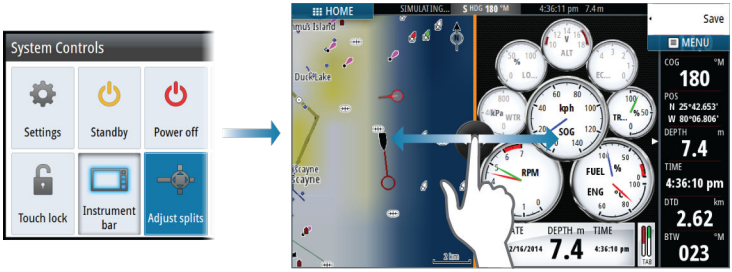
The images can be available on any location that can be seen in the files browser. When a picture is chosen as the wallpaper, it is automatically copied to the Wallpaper folder.



Adjusting panel size

You can change the panel size for an active split page. The panel size can be adjusted for both favorite pages and for predefined split pages.

1. Activate the **System Controls** dialog
2. Select the adjust splits option in the dialog
3. Adjust the panel size by dragging the adjustment icon
4. Confirm your changes by tapping one of the panels or selecting the save option in the menu.



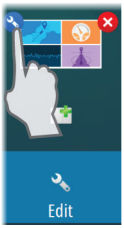
The changes are saved to the active favorite or split page.

Adding new favorite pages

1. Select the **New** icon in the favorite panel on the **Home** page to open the page editor dialog
2. Drag and drop page icons to set up a new page
3. Change the panel arrangement (only possible for 2 or 3 panels), if required.
4. Save the page layout

The system displays the new favorite page, and the new page is included in the list of favorite pages on the **Home** page.

Edit favorite pages



1. Select the edit icon for a favorite icon to enter edit mode
   - Select the X icon to remove the page
   - Select the tool icon to display the page editor dialog
2. Add or remove panels in the page editor dialog.
3. Save or discard your changes to leave the favorite edit mode.

Setting the appearance of the Instrument bar

Data sources connected to the system can be viewed in the Instrument bar.

You can configure the Instrument bar to display either one or two bars, or set it to alternate the bars automatically.

You can turn the Instrument bar off from the **System controls** dialog.

→ ***Note:*** This only turns the Instrument bar off for the current page.

Turning the Instrument bar on/off

1. Activate the **System controls** dialog
2. Deactivate/activate the instrument bar icon to toggle the bar on and off.

Edit the content of the Instrument bar

1. Select the **MENU** button to edit the content
2. Select the content you want to display

→ ***Note:*** You can configure Bar 1 for active page or for all pages except those that have a local configuration. Bar 2 can only be configured for active page.

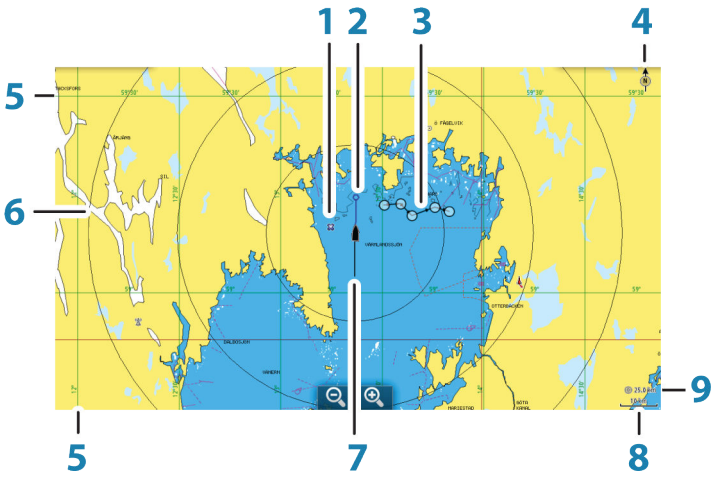
3. Define the time period if you want the two bars to alternate automatically
4. Select the edit option to change any of the instrument fields, followed by the field you want to change
5. Save your changes by selecting the finish edit option in the menu.

4

Charts

The chart function displays your vessel's position relative to land and other chart objects. On the chart panel you can plan and navigate routes, place waypoints, and display AIS targets.

The Chart panel



1. Waypoint*
2. Vessel with extension line (extension line is optional)
3. Route*
4. North indicator
5. Grid lines*
6. Range rings*
7. Track*
8. Chart range scale
9. Range rings interval (only displayed when Range rings are turned on)

* Optional chart items. You turn the optional images on/off individually from the Chart settings dialog.

Chart data

The system is delivered with different embedded cartography depending on region.

All units support Insight charts from Navico including Insight Genesis. The system also supports Navionics Gold, Platinum+ and Navionics+, C-MAP MAX-N/MAX-N+ by Jeppesen as well as content created by variety of third party mapping providers in the AT5 format. For a full selection of available charts please visit insightstore.navico.com, c-map.jeppesen.com or navionics.com.

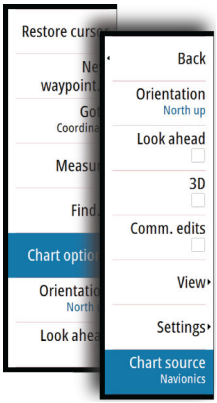
→ ***Note:*** The system does not automatically switch to embedded cartography if the chart card is removed. A low-resolution chart will be displayed until you re-insert the card or manually switch back to the embedded cartography.

Showing dual chart types

If you have different chart types available - embedded or in the card slot - you can show two different chart types simultaneously on a page with two chart panels.

You can select a dual chart panel by pressing and holding the Chart application button on the **Home** page, or by creating a favorite page with two chart panels.

Selecting chart type



You specify the chart type in the Chart panel by selecting one of the available chart types in the chart source menu option. If you have a multiple Chart panel, the chart type is set individually for each chart panel. Activate one of the chart panels, and then select one of the available chart types in the chart source menu option. Repeat the process for the second chart panel, and select an alternative chart type for this panel.

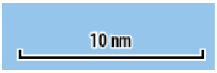
→ ***Note:*** To show charts other than Navionics, Insight chart type must be selected.

If you have identical charts available - built in or in the card slot - the system automatically selects the chart with most chart details for your displayed region.

Vessel symbol

When the GO7 has a valid GPS position lock, the vessel symbol indicates vessel position. If no GPS position is available, the vessel symbol includes a question mark.

Chart scale



You zoom in and out on the chart by using the zoom panel icons, or by using fingers to pinch (zoom out) or spread (zoom in).

Chart range scale and range rings interval (when turned on) are shown in the lower right corner of the chart panel.

Panning the chart

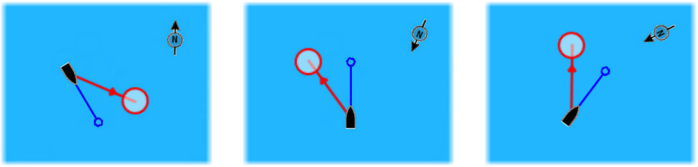
You can move the chart in any direction by dragging your finger on the screen.

Select the **Clear cursor** menu option to remove the cursor and cursor window from the panel. This also centers the chart to the vessel position.

Positioning the vessel on the chart panel

Chart orientation

Several options are available for how the chart is rotated in the panel. The chart orientation symbol in the panel's upper right corner indicates the north direction.



North up *Heading up* *Course up*

North up
Displays the chart with north upward.

Heading up

Displays the chart with the vessel's heading directed upward. Heading information is received from a compass. If heading is not available, then the COG from the GPS is used.

Course up

Rotates the chart in the direction of the next waypoint when navigating a route or navigating to a waypoint. If not navigating the heading up orientation is used until navigation is started.

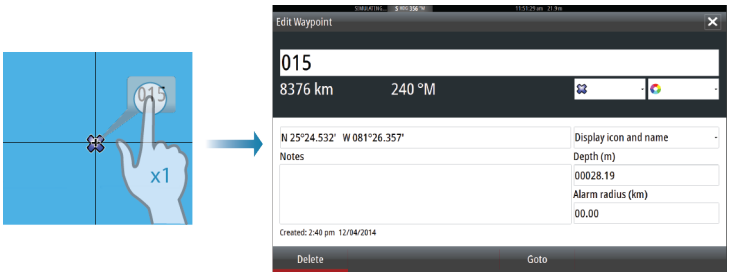
Look ahead

Moves the vessel icon closer to the bottom of the screen so that you can maximize your view ahead.

Displaying information about chart items

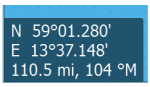
When you select a chart item, a waypoint, a route, or a target, basic information for the selected item is displayed. Select the chart item's pop-up to display all available information for that item. You can also activate the detailed information dialog from the menu.

→ ***Note:*** Pop-up information has to be enabled in chart settings to see basic item information.



Using the cursor on the chart panel

By default, the cursor is not shown on the chart panel.



When you activate the cursor, the cursor position window is displayed. When the cursor is active, the chart does not pan or rotate to follow the vessel.

Select the **Clear cursor** menu option to remove the cursor and the cursor window from the panel. This also centers the chart to the vessel position.

Select the **Restore cursor** menu option to display the cursor in its previous location. The **Clear cursor** and **Restore cursor** options are useful features for toggling between the vessel's current location and the cursor position.

Creating routes

You can create routes as follows on the chart panel.

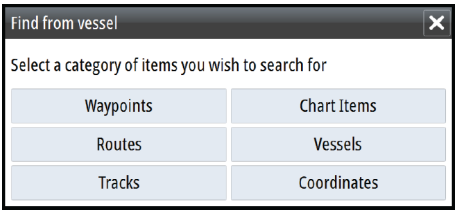
1. Position the cursor on the chart panel.
2. Select **New** followed by **New route** in the menu.
3. Tap the chart panel to position the first routepoint.
4. Continue positioning the remaining routepoints.
5. Save the route by selecting the save option in the menu.

→ ***Note:*** For more information, refer to *"Waypoints, Routes, and Tracks"* on page 50.

Find objects on chart panels

You can search for other vessels or various chart items from a chart panel.

Activate the cursor on the panel to search from the cursor position. If the cursor is not active, the system searches for items from the vessel's position.



→ ***Note:*** You must have a SIRIUS data package subscription to search for fueling stations and an AIS receiver connected to search for vessels.

3D charts

The 3D option provides a three dimensional graphical view of land and sea contours.

→ ***Note:*** All chart types work in 3D mode, but without 3D cartography for the appropriate area the chart appears flat.

When 3D chart option is selected, the Pan and the Rotate icons appear on the right side of the chart panel.

Panning the 3D chart

You can move the chart in any direction by selecting the Pan icon and then panning in the desired direction.

Select the **Return to vessel** menu option to stop panning, and to center the chart to vessel position.

Controlling the view angle

You can control the view angle by selecting the Rotate icon and then panning the chart panel.

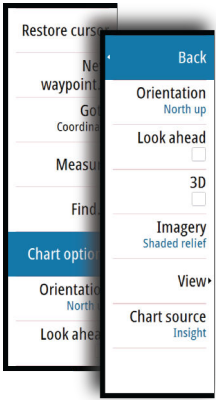
- To change the direction you are viewing, pan horizontally
- To change the tilt angle of the view, pan vertically

→ ***Note:*** When centered on the vessel position, only the tilt angle can be adjusted. The view direction is controlled by the chart orientation setting. See *"Positioning the vessel on the chart panel"* on page 29.

Zooming a 3D chart

You zoom in and out on a 3D chart by using the zoom (+ or -) buttons, or the touch method of pinching and spreading your fingers.

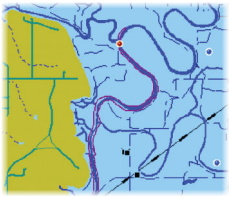
Insight specific chart options



Orientation, Look ahead, 3D, and change Chart source (previously described in this section) are common for all chart types.

Chart imagery style

The charts can be displayed in three imagery styles.

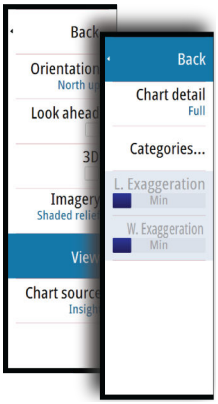


2D mapping style

Shaded relief

No contours

Insight view options

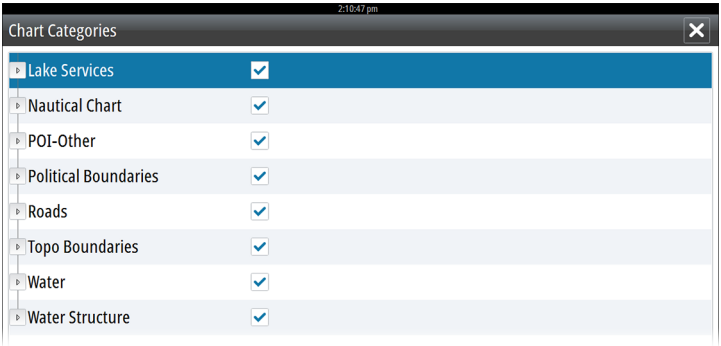


Insight Chart details

- **Low**
  Basic level of information that cannot be removed, and includes information that is required in all geographic areas. It is not intended to be sufficient for safe navigation.
- **Medium**
  Minimum information sufficient for navigation.
- **Full**
  All available information for the chart in use.

Insight chart categories

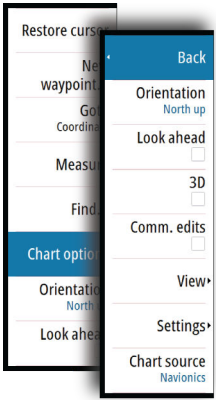
Insight charts include several categories and sub-categories that you can turn on/off individually depending on which information you want to see.



Land Exaggeration and Water Exaggeration

Graphical settings available in 3D mode only. Exaggeration is a multiplier applied to the drawn height of hills on land, and troughs in water to make them look taller or deeper.

Navionics specific chart options



Orientation, Look ahead, 3D and change Chart source (previously described in this section) are common for all chart types.

Community edits

Toggles on the chart layer including Navionics edits. These are user information or edits uploaded to Navionics Community by users, and made available in Navionics charts.

For more information, refer to Navionics information included with your chart, or to Navionics website: www.navionics.com.

Navionics chart settings

Colored seabed areas

Used for displaying different depth areas in different shades of blue.

Annotation

Determines what area information, such as names of locations and notes of areas, is available to display.

Presentation type

Provides marine charting information such as symbols, colors of the navigation chart and wording for either International or U.S. presentation types.

Chart details

Provides you with different levels of geographical layer information.

Safety depth

The Navionics charts use different shades of blue to distinguish between shallow and deep water.

Safety depth, based on a selected limit, is drawn without blue shading.

→ ***Note:*** The built in Navionics database features data down to 20 m, after which it is all white.

Contours depth

Determines which contours you see on the chart down to the selected safety depth value.

Rock filter level

Hides rock identification on the chart beneath a given depth.

This helps you to declutter charts in areas where there are many rocks located at depths well below your vessel's draught.

Navionics view options

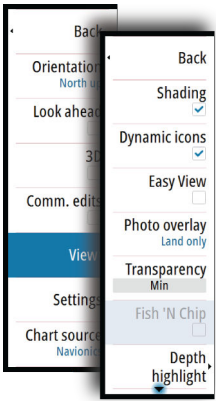


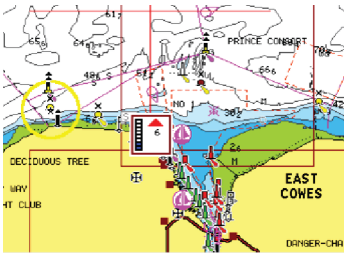
Chart shading

Shading adds terrain information to the chart.

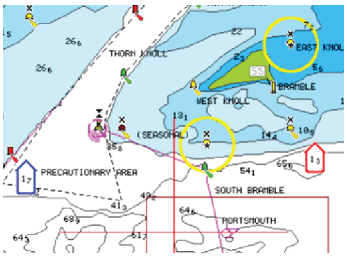
Navionics dynamic tide and current icons

Shows tides and currents with a gauge and an arrow instead of the diamond icons used for static tides and current information.

The tide and current data available in Navionics charts are related to a specific date and time. The system animates the arrows and/or gauges to show the tides and currents evolution over time.



Dynamic tide information



Dynamic current information

The following icons and symbology are used:

Current speed

The arrow length depends on the rate, and the symbol is rotated according to flow direction. Flow rate is shown inside the arrow symbol. The red symbol is used when current speed is increasing, and the blue symbol is used when current speed is decreasing.

Tide height

The gauge has 8 labels and is set according to absolute max/min value of the evaluated day. The red arrow is used when tide is rising, and the blue arrow is used when tide is falling.

➔ ***Note:*** All numeric values are shown in the relevant system units (unit of measurement) set by user.

Easy View

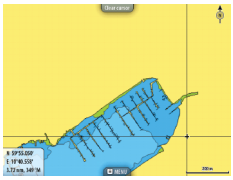
Magnifying feature that increases the size of chart items and text.

➔ ***Note:*** There is no indication on the chart showing that this feature is active.

Photo overlay

Photo overlay enables you to view satellite photo images of an area as an overlay on the chart. The availability of such photos is limited to certain regions, and Navionics cartography version.

You can view photo overlays in either 2D or 3D modes.



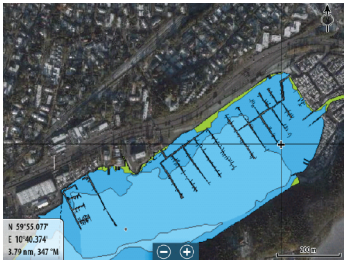
No Photo overlay

Photo overlay, land only

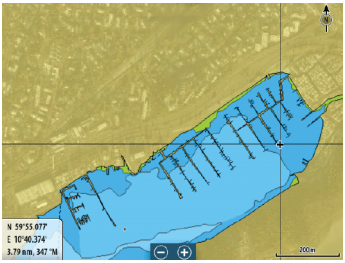
Full Photo overlay

Photo transparency

The Photo transparency sets the opaqueness of the photo overlay. With minimum transparency settings the chart details are almost hidden by the photo.



Minimum transparency



Maximum transparency

Navionics Fish N' Chip

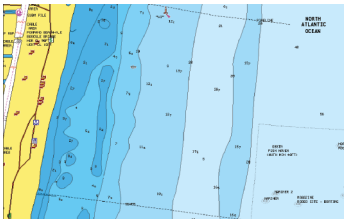
The system supports Navionics Fish N' Chip (U.S. only) chart feature.

For more information, see www.navionics.com.

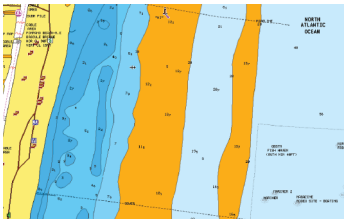
Depth highlight range

Select a range of depths between which Navionics fills with a different color.

This allows you to highlight a specific range of depths for fishing purposes. The range is only as accurate as the underlying chart data, meaning that if the chart only contains 5 meter intervals for contour lines, the shading is rounded to the nearest available contour line.



No Depth highlight range

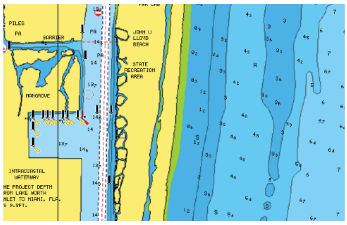


Depth highlight range: 6 m - 12 m

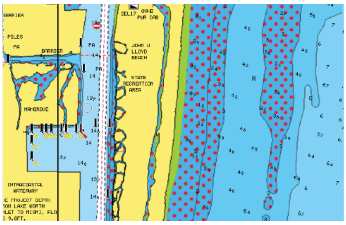
Shallow water highlight

Highlights areas of shallow water.

This allows you to highlight areas of water between 0 and the selected depth (up to 10 meters/30 feet).



No shallow water highlighted



Shallow water highlight: 0 m - 3 m

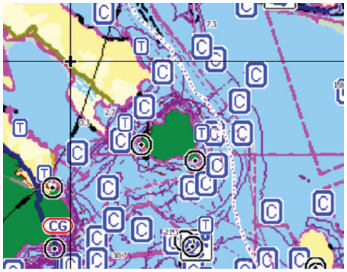
Jeppesen tides and currents

The system can display Jeppesen tides and currents. With this information it is possible to predict the time, level, direction and strength of currents and tides. This is an important tool when considering planning and navigation of a trip.

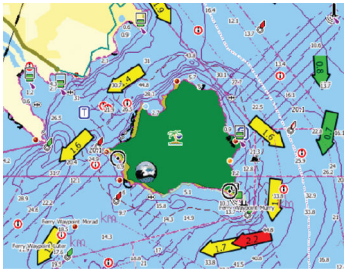
In large zoom ranges the tides and currents are displayed as a square icon including the letter **T** (Tides) or **C** (Current). When you select one of the icons, tidal or current information for that location are displayed.

Dynamic current data can be viewed by zooming inside a 1-nautical mile zoom range. At that range, the Current icon changes to an animated dynamic icon that shows the speed and direction of the current. Dynamic icons are colored in black (greater than 6 knots), red (greater than 2 knots and less than or equal to 6 knots), yellow (greater than 1 knot and less than or equal to 2 knots) or green (equal to or less than 1 knot), depending on the current in that location.

If there is no current (0 knots) this will be shown as a white, square icon.

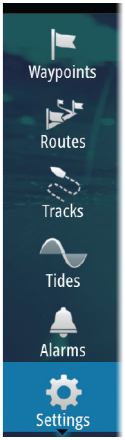


Static Current and Tide icons

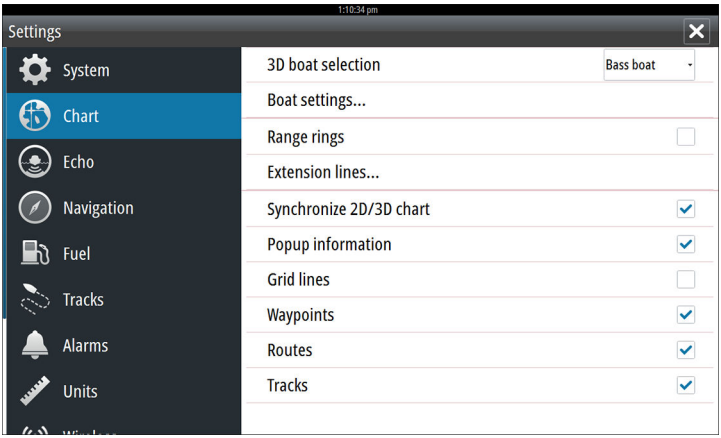


Dynamic Current icons

Chart settings



Settings and display options made in the Chart settings page are common for all chart panels.



3D boat selection

Determines which icon to use on 3D charts.

Boat settings

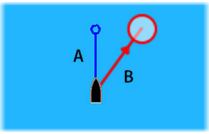
The boat settings are used when calculating an automatic route. The boat's draught, width and height must be input to use the autorouting and easy routing features.

Range Rings

The range rings can be used to present the distance from your vessel to other chart objects.

The range scale is set automatically by the system to suit the chart scale.

Extension lines

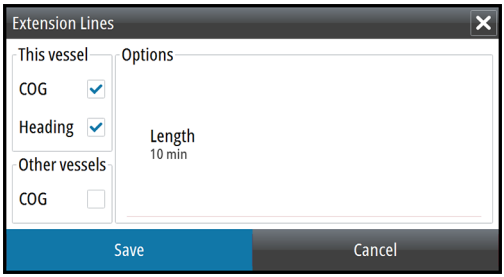


A: Heading

B: Course Over Ground (COG)

The lengths of the extension lines are either set as a fixed distance, or to indicate the distance the vessel moves in the selected time period. If no options are turned on for the vessel then no extension lines are shown for your vessel.

Your vessel heading is based on information from the active heading sensor and the COG is based on information from the active GPS sensor.



Synchronize 2D/3D chart

Links the position shown on one chart with the position shown on the other chart when a 2D and a 3D chart are shown side by side.

Pop-up information

Selects whether basic information for chart items is displayed when you select the item.

Grid lines

Turns on/off viewing of longitude and latitude grid lines on the chart.

Waypoints, Routes, Tracks

Turns on/off displaying of these items on chart panels. Also opens the Waypoints, Routes and Tracks dialogs you can use to manage them.

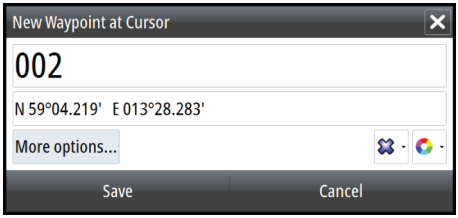
5 Waypoints, Routes, and Tracks

Waypoints

A waypoint is a user generated mark positioned on a chart, or on the Echosounder image. Each waypoint has an exact position with latitude and longitude coordinates. A waypoint positioned on the Echosounder image has a depth value, in addition to position information. A waypoint is used to mark a position you later may want to return to. Two or more waypoints can also be combined to create a route.

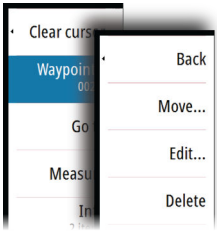
Saving waypoints

You can save a waypoint at a selected location by positioning the cursor on the panel, and then selecting the new waypoint option in the menu.



In the Chart and Nav panels, you can save a waypoint at the vessel position, when the cursor is not active, by selecting the new waypoint option in the menu.

Moving a waypoint



1. Select the waypoint you want to move
   - The waypoint icon expands to indicate that it is active
2. Activate the menu and select the waypoint in the menu
3. Select the move option
4. Select the new waypoint position
5. Select Finish in the menu

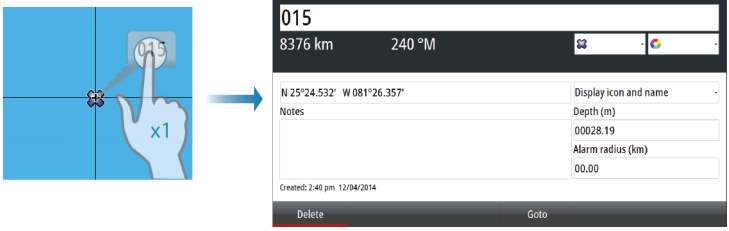
The waypoint is now automatically saved at the new position.

Edit a waypoint

You can edit all information about a waypoint from the **Edit Waypoint** dialog.

This dialog is activated by selecting the waypoint's pop-up, or from the menu when the waypoint is activated.

The dialog can also be accessed from the Waypoints tool on the **Home** page.



Delete a waypoint

You can delete a waypoint from the **Edit Waypoint** dialog or by selecting the **Delete** menu option when the waypoint is activated.

You can also delete waypoints from the Waypoints tool on the **Home** page.

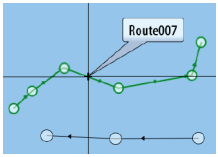
You can delete MOB waypoints the same way.

Waypoint alarm settings

You can set an alarm radius for each individual waypoint you create. The alarm is set in the **Edit Waypoint** dialog.

➔ ***Note:*** The waypoint radius alarm must be toggled ON in the alarm dialog to activate an alarm when your vessel comes within the defined radius. For more information, refer to *"Alarms dialog"* on page 104.

Routes



A route consists of a series of routepoints entered in the order that you want to navigate them.

When you select a route on the chart panel it turns green, and the route name is displayed.

The system includes support for Navionics Autorouting and Jeppesen Easy Routing. This feature automatically suggests routepoints between the first and last routepoint of a route, or between selected routepoints in a complex route. You can use the feature when you create a new route, or you can use it to edit already saved routes.

Creating a new route on the chart panel

1. Activate the cursor on the chart panel.
2. Select the new route option from the menu.
3. Position the first waypoint on the chart panel.
4. Continue positioning new routepoints on the chart panel until the route is completed.
5. Save the route by selecting the save option in the menu.

Edit a route from the chart panel

1. Select the route to make it active.
2. Select the route edit option in the menu.
3. Position the new routepoint on the chart panel:
   - If you set the new routepoint on a leg, a new point is added between existing routepoints.
   - If you set the new routepoint outside the route, the new routepoint is added after the last point in the route.
4. Drag a routepoint to move it to a new position.
5. Save the route by selecting the save option in the menu.

→ ***Note:*** The menu changes depending on the selected edit option. All edits are confirmed or cancelled from the menu.

Delete a route

You can delete a route by selecting the **Delete** menu option when the route is activated. You can also delete routes from the Routes tool on the **Home** page.

Autorouting and Easy Routing

The Autorouting and Easy Routing suggest new routepoint positions based on information in the map and on your boat's size. Before you can start using this feature the boat draught, width and height must be entered into the system. The boat settings dialog is automatically displayed if the information is missing when you start the feature.

→ ***Note:*** GO7 units designed for sale in the U.S. region do not have Autorouting or Easy Routing capabilities. Autorouting or Easy Routing features are disabled on all non-U.S. units when they are used in U.S. territorial waters.

→ ***Note:*** It is not possible to start the Autorouting or Easy Routing if one of the selected routepoints is located in an unsafe area. A warning dialog is displayed, and you have to move the relevant routepoint(s) to a safe area to proceed.

→ ***Note:*** If no compatible cartography is available, the Autorouting or Easy Routing menu option is not available. Compatible cartography includes Jeppesen CMAP MAX-N +, Navionics+ and Navionics Platinum. For a full selection of available charts please visit insightstore.navico.com, c-map.jeppesen.com or navionics.com.

1. Position at least two routepoints on a new route, or open an existing route for editing.
2. Select **Autorouting**, followed by:
   - **Entire Route** if you want the system to add new routepoints between the first and the last routepoint of the open route.
   - **Selection** if you want to manually select the routepoints that define the limits for the autorouting, then select the relevant routepoints. Selected routepoints are colored red. Only two routepoints can be selected, and the system discards any routepoints between your selected start and end points.
3. Select **Accept** to start the automatic routing.

- When the automatic routing is completed the route appears in preview mode, and the legs are color coded to indicate safe or unsafe areas. Navionics uses red (unsafe) and green (safe), while C-MAP uses red (unsafe), yellow (dangerous) and green (safe).

4. Move any routepoints if required when the route is in preview mode.
5. Select **Keep** to accept the routepoints positions.
6. Eventually repeat step 2 (**Selection**) and step 3 if you want the system to automatically position routepoints for other parts of the route.
7. Select **Save** to complete the automatic routing and save the route.

Autorouting and Easy Routing examples

- **Entire route** option used when first and last route points are selected.

First and last routepoint

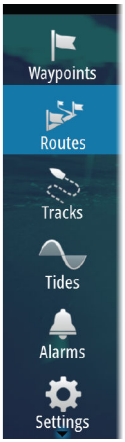
Result after automatic routing

- **Selection** option used for autorouting part of a route.

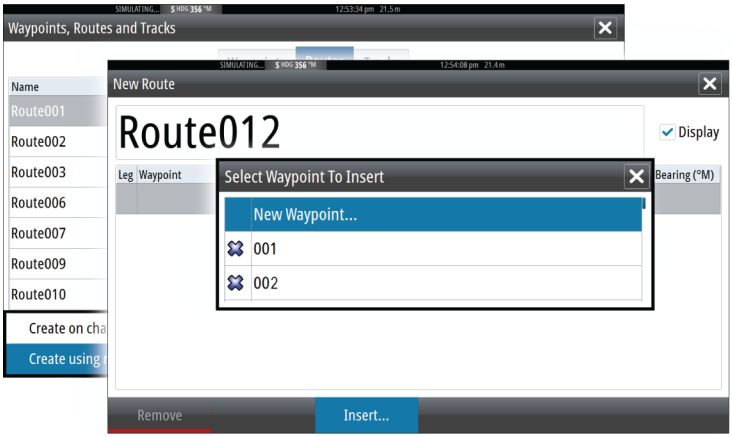
Two routepoints selected

Result after automatic routing

Creating routes using existing waypoints



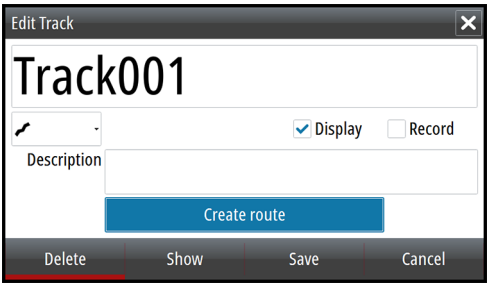
You can create a new route by combining existing waypoints from the **Routes** dialog. The dialog is activated by using the **Routes** tool on the **Home** page.



Converting Tracks to Routes

You can convert a track to a route from the Edit Track dialog. The dialog is activated by activating the track, then selecting the track's pop-up, or by selecting the info option from the menu.

The Edit Tracks dialog can also be accessed by selecting the Tracks tool on the **Home** page.

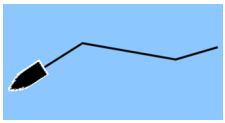


The Edit Route dialog

You can add and remove routepoints from the **Edit Route** dialog. This dialog is activated by selecting an active route's pop-up or from the menu.

The dialog can also be accessed by using the **Routes** tool on the **Home** page.

Tracks



Tracks are a graphical presentation of the historical path of the vessel, allowing you to retrace where you have travelled. Tracks can be converted to routes from the **Edit** dialog.

From the factory, the system is set to automatically track and draw the vessel's movement on the chart panel. The system continues to record the Tracks until the length reaches the maximum points, and then automatically begins overwriting the oldest points.

The automatic tracking function can be turned off from the Tracks dialog.

Creating new Tracks

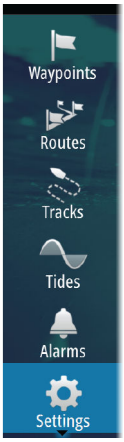
You can start a new track from the **Tracks** dialog, activated by using the **Tracks** tool on the Home page.

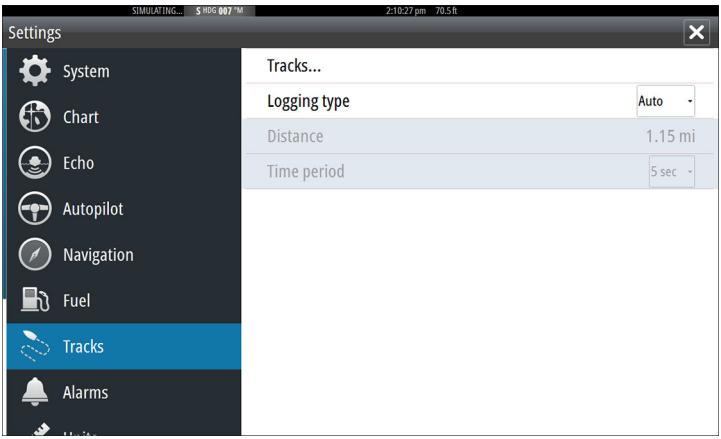
Tracks settings

Tracks are made up of a series of points connected by line segments whose length depends on the frequency of the recording.

You can select to position track points based on time settings, distance, or by letting the system position a waypoint automatically when a course change is registered.

→ ***Note:*** The Tracks option must also be turned ON in the chart settings to be visible.

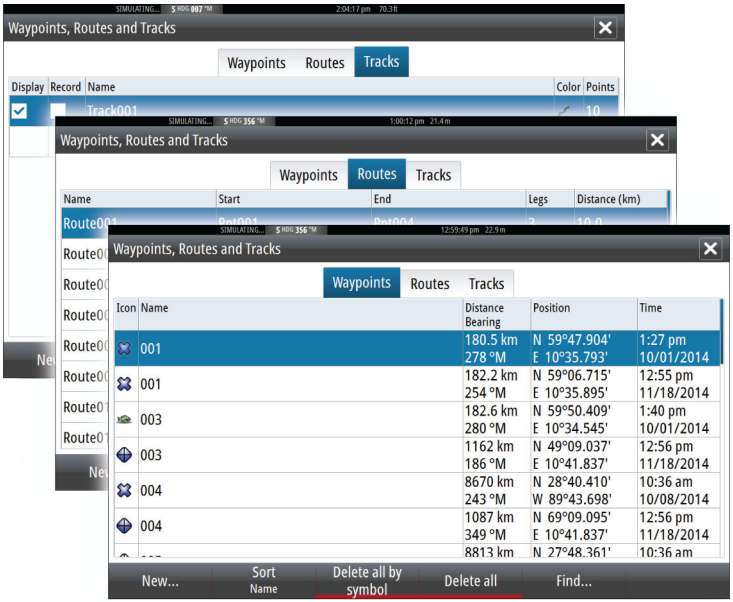




Waypoints, Routes, and Tracks dialogs

The Waypoints, Routes, and Tracks dialogs give access to advanced edit functions and settings for these items.

The dialogs are accessed from the **Tools panel** on the **Home** page.



6 Navigating

The navigation function included in the system allows you to navigate to the cursor position, to a waypoint, or along a predefined route.

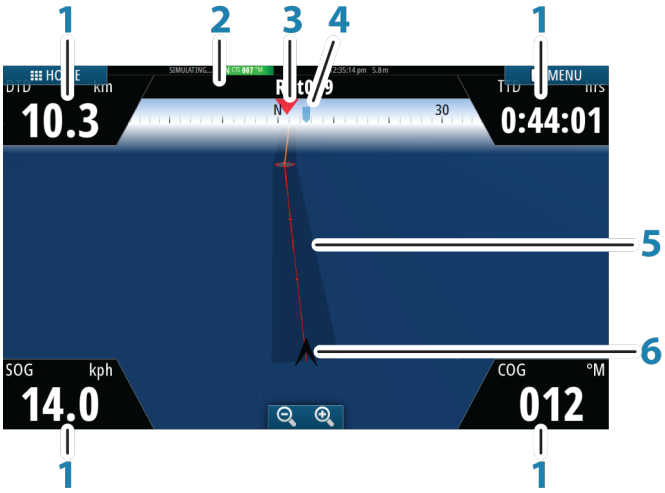
If autopilot functionality is included in your system, the autopilot can be set to automatically navigate the vessel.

For information about positioning waypoints and creating routes, refer to *"Waypoints, Routes, and Tracks"* on page 42.

Navigation panels

The Nav panels can be used to display information when you are navigating.

The Nav panel



The Nav panel is activated from the Home page, either as a full page panel or as part of a multiple panel page.

1 **Data fields**

2 **Route information**

3 **Vessel heading**

4 **Bearing to next routepoint**

5 **Bearing line with allowed off course limit**
When travelling on a route the bearing line shows the intended course from one waypoint towards the next.
When navigating towards a waypoint (cursor position, MOB or an entered lat/lon position), the bearing line shows the intended course from the point at which navigation was started towards the waypoint.

6 **Vessel symbol**
Indicates distance and bearing relative to the intended course.
If the XTE (Cross Track Error) exceeds the defined XTE limit, this is indicated with a red arrow including the distance from the track line. Refer to *"XTE limit"* on page 55.

Data Fields

The Nav panel offers the following information:

DTD	Distance to destination
SOG	Speed over ground
COG	Course over ground
TTD	Time to destination

Navigate to cursor position

You can start navigating to a cursor position on any chart, or Echosounder panel.

Position the cursor at the selected destination on the panel, and then select the **Goto Cursor** option in the menu.

→ ***Note:*** The **Goto Cursor** menu option is not available if you are already navigating.

Navigate a route

You can start navigating a route from the chart panel or from the **Route** dialog.

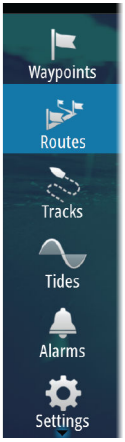
When route navigation is started, the menu expands and shows options for canceling the navigation, for skipping a waypoint, and for restarting the route from current vessel position.

Starting a route from the chart panel

Activate a route on the panel, and then select the route navigation option from the menu.

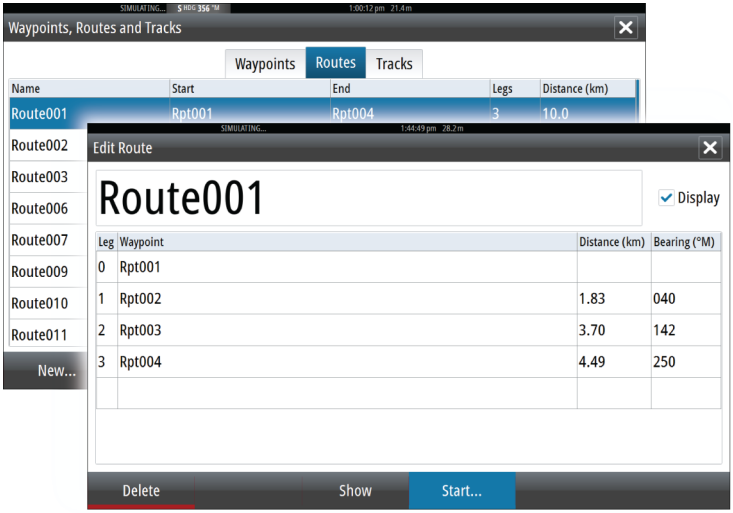
You can select a routepoint to start navigating from a selected position.

Start navigating a route from the Route dialog

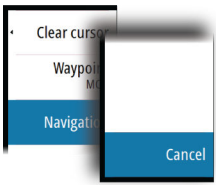


You can start navigating from the **Route** dialog, activated by:

- Selecting the **Route** tool from the **Home** page
- Selecting the route details from the menu



Cancel navigation



When you are navigating, the menu includes an option for cancelling the navigation.

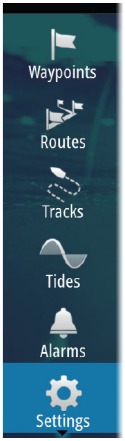
Navigating with the autopilot

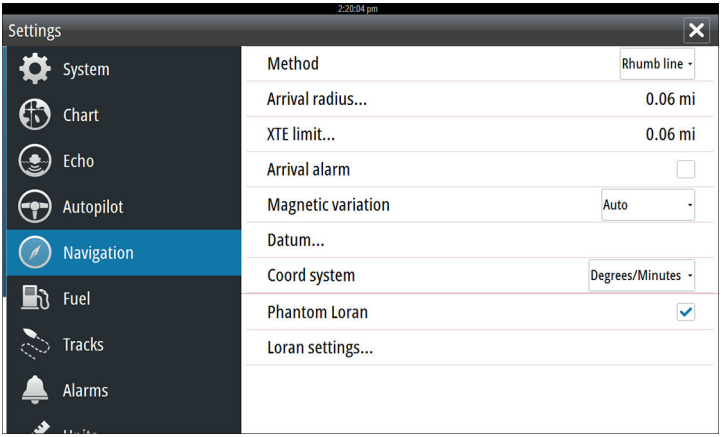
When you start navigation on a system with autopilot functionality, you are prompted to set the autopilot to navigation mode.

If you choose not to engage the autopilot, the autopilot can be set to navigation mode from the Autopilot Controller later on.

For more information about autopilot functionality, refer to *"Autopilot"* on page 57.

Navigation settings





Navigation method

Different methods are available for calculating the distance and bearing between any two points on a chart.

The Great circle route is the shortest path between two points. However, if you are to travel along such a route, it would be difficult to steer manually as the heading would constantly be changing (except in the case of due north, south, or along the equator).

Rhumb lines are tracks of constant bearing. It is possible to travel between two locations using Rhumb line computation, but the distance would usually be greater than if Great circle is used.

Arrival radius

Sets an invisible circle around the destination waypoint.

The vessel is considered arrived at the waypoint when it is within this radius.

XTE limit

This setting defines how far the vessel can deviate from the selected route, if the vessel goes beyond this limit, an alarm is activated.

Arrival alarm

When the arrival alarm is enabled, an alarm is activated when the vessel reaches the waypoint or when it is within the specified arrival radius.

Magnetic variation

Magnetic variation is the difference between true bearings and magnetic bearings, caused by different locations of the Geographic and the Magnetic north poles. Any local anomalies such as iron deposits might also affect the magnetic bearings.

When set to Auto, the system automatically converts magnetic north to true north. Select manual mode if you need to enter your own local magnetic variation.

Datum

Most paper charts are made in the WGS84 format, which also is used by the GO7.

If your paper charts are in a different format, you can change the datum settings accordingly to match your paper charts.

Coordinate system

Several coordinate systems can be used to control the format for latitude and longitude coordinates displayed on the chart panel.

Phantom Loran

Enables use of Phantom Loran positioning system.

Loran settings

Defines Loran chains (GRI) and preferred station for waypoint entry, cursor position and position panel.

The graphic example shows a cursor position window with Loran position information.

For more information refer to your Loran system documentation.

7 Autopilot

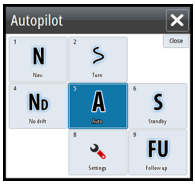
If an AC12N, AC42N or SG05 autopilot computer is connected to the system, autopilot functionality is available in the system.

An Autopilot is designed to maintain an accurate course in various sea conditions with minimal helm movements.

Safe operation with the autopilot

> ⚠ Warning: An autopilot is a useful navigational aid, but DOES NOT replace a human navigator.

Activating the autopilot



You activate the autopilot from any panel by selecting the autopilot tile in the Instrument bar, followed by selecting a mode in the **Autopilot Controller**.

Switching from automatic mode to manual steering

You switch the autopilot to STBY mode from any automatic operation mode from the autopilot pop-up.

Autopilot indication on the pages

1 Autopilot indication in Status bar

2 Autopilot pop-up

3 Autopilot tile in Instrument bar

Autopilot mode indication in the Status bar

The Status bar shows autopilot information as long as an autopilot computer is connected to the network.

Icons are included if the autopilot is passive or locked by another autopilot control unit.

Autopilot pop up

You control the autopilot from the autopilot pop-up.

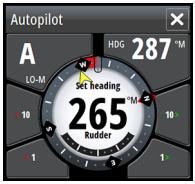
The pop-up has a fixed position on the page, and it is available for all pages except when an Autopilot panel is active.

As long as the autopilot pop-up is active, you cannot operate the background panel or its menu.

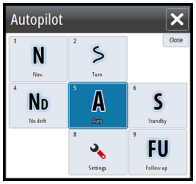
You remove the pop-up from a page by selecting the **X** in the upper right corner. You turn it on again by selecting the autopilot tile in the instrument bar.

The following pop-ups are available:

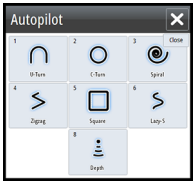
- **Autopilot controller**, showing active mode, heading, rudder and various steering information depending on active autopilot mode. Manual adjustments to the set heading can only be made when the port and starboard arrow indicators are illuminated red and green.
- **Mode selection**, includes access to turn pattern selection.
- **Turn pattern selection**



Autopilot controller



Mode selection



Turn pattern selection

Autopilot tile in Instrument bar

You can select to show the autopilot tile in the Instrument bar.

If the autopilot pop-up is turned off you can turn it on by selecting the tile in the Instrument bar.

The Autopilot panel

The autopilot panel is used to display navigation data. It can be shown as a full screen panel, or in a multi-panel page.

The number of data fields included in the autopilot panel is dependent on available panel size.

Data fields

The following abbreviations are used in the autopilot panel:

CTS	Course to steer
DTD	Distance to destination
DTW	Distance to next waypoint
SOG	Speed over ground
COG	Course over ground
XTE	Cross track error (L: left or R: right)

Mode overview

The autopilot has several steering modes. The number of modes and features within the mode depend on boat type and available inputs, as shown in the following list:

- **Standby**
  Standby mode used when manually steering at the helm. Compass and rudder angle is shown on the display.
- **NFU**
  Non-Follow Up steering where the rudder movement is controlled by using the Port and Starboard keys in the Pilot pop-up, or by another NFU unit.
- **FU**
  Follow-up steering where the rudder angle is set by another FU unit.
- **AUTO**
  Automatic steering where the set heading is maintained.
  - **Heading capture**
    Aborts the turn and uses the instantaneous compass reading as set heading.
  - **Turn patterns**
    Moves the vessel automatically in pre-defined turn steering patterns.
  - **Tacking**
    Only available if the boat type is set to Sail in the Autopilot Commissioning dialog. Tacking with a fixed angle.
- **NoDrift**

Automatic steering, keeping the vessel on a straight bearing line by compensating for drift.

  - **Dodging**
    Returns to NoDrift mode after a heading change.
- **NAV**
  Navigation steering. Steers the vessel to a specific waypoint or through a route.
- **WIND**
  Only available if the boat type is set to Sail in the Autopilot Commissioning dialog. Automatic steering where the vessel heading is changed to maintain a set wind angle.
  - **Tacking/Gybing**
    Only available if the boat type is set to Sail in the Autopilot Commissioning dialog. Tacking/Gybing with apparent or true wing angle as reference.
- **WIND Nav**
  Automatic steering, using both wind and GPS data to steer the vessel to a specific waypoint or through a route.

Standby mode

Standby (STBY) mode is used when you steer the boat at the helm.

Non-Follow Up (NFU, Power steering)

In NFU mode you use the port and starboard arrow buttons in the autopilot pop-up to control the rudder. The rudder will move as long as the button is pressed.

- Activate NFU mode by selecting the port or starboard arrow button in the pop-up when the autopilot is in STBY or FU mode.

You return to STBY mode by selecting the STBY mode button in the autopilot pop-up.

Follow-up steering (FU)

→ ***Note:*** FU mode is only available if you have an OP40 or similar included in the system. The GO7 does not have a rotary knob.

In FU mode you use the rotary knob to control the rudder angle. Press the rotary knob, then turn the knob to set the rudder angle. The rudder moves to the commanded angle and then stop.

- You select FU mode from the autopilot pop-up

➔ ***Note:*** If the autopilot pop-up is closed or if an alarm dialog is activated on the unit controlling the autopilot in FU mode, the autopilot automatically changes to STBY mode.

⚠ Warning: While in FU mode you cannot take manual control of the wheel.

AUTO mode (auto compass)

In AUTO mode the autopilot issues rudder commands required to steer the vessel automatically on a set heading.

- You select AUTO mode from the autopilot pop-up. When the mode is activated, the autopilot selects the current boat heading as the set heading.

Changing set heading in AUTO mode

You adjust the set heading by using the Port and Starboard arrow buttons in the autopilot pop-up, or by selecting the Heading tile in the autopilot pop-up and then entering the desired heading value.

An immediate heading change takes place. The new heading is maintained until a new heading is set.

Heading capture

When the vessel is turning in AUTO mode, an instant reset of the mode activates the heading capture function. This automatically cancels the turn, and the vessel continues on the heading read from the compass the very moment you re-activated the mode.

Tacking in AUTO mode

➔ ***Note:*** The tack function is only available when the system is set up for boat type SAIL in the Autopilot Commissioning dialog.

Tacking should only be performed into the wind and must be tried out in calm sea conditions with light wind to find out how it works on your boat. Due to a wide range of boat characteristics (from cruising to racing boats) the performance of the tack function may vary from boat to boat.

Tacking in AUTO mode is different from tacking in WIND mode. In AUTO mode the tack angle is fixed and as defined by the user. For more details, see *"Tacking - WIND mode"* on page 66.

You initiate the tack function from AUTO mode.

When tacking direction is selected the autopilot changes the current set course according to the set fixed tacking angle.

You can interrupt the tack operation as long as the tack dialog is open by selecting the opposite tacking direction. When interrupted the boat returns to the previous set heading.

NoDrift mode

NoDrift mode combines the autopilot and the positioning information from the GPS.

In NoDrift mode the vessel is steered along a calculated track line in a direction set by the user. If the vessel's heading is drifting away from the original heading due to current and/or wind, the vessel follows the line with a crab angle.

1. Turn the vessel to the desired heading
2. Activate the NoDrift mode. The autopilot draws an invisible bearing line based on current heading from the boat's position

Unlike in AUTO (compass) mode, the autopilot now uses the position information to calculate the cross track error, and automatically keeps your track straight.

You use the port/starboard arrow panel buttons in the autopilot pop-up to reset the bearing line while in NoDrift mode.

Dodging

If you need to avoid an obstacle when using NoDrift mode, you can set the autopilot to STBY and power steer or use the helm until the obstacle is passed.

If you return to NoDrift mode within 60 seconds you can select to continue on previous set bearing line.

If you do not respond, the dialog disappears and the autopilot goes to NoDrift mode with current heading as set bearing line.

NAV mode

> ⚠ Warning: **NAV** mode should only be used in open waters.

You can use the autopilot to automatically steer the boat to a specific waypoint location, or along a pre-defined route. The position information from the GPS is used to change the course to steer to keep the boat on the track line and to the destination waypoint.

→ ***Note:*** To obtain satisfactory navigation steering, the GO7 must have valid position input. Autosteering must be tested and determined satisfactory prior to entering the NAV mode.

Start automatic navigating

When you start navigating a route or to a waypoint from the chart panel, you are prompted to set the autopilot to NAV mode. If you reject this request, you can start NAV mode from the autopilot mode menu.

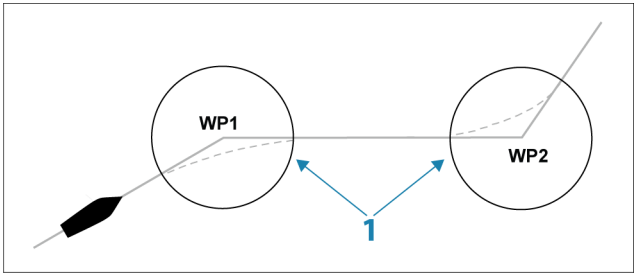
When NAV mode is initiated, the autopilot automatically keeps the vessel on the leg.

When the vessel reaches the arrival circle for a routepoint, the autopilot gives an audible warning and displays a dialog with the new course information. If the required course change to the next waypoint is less than the Navigation change limit, the autopilot automatically changes the course. If the required course change to next waypoint in a route is more than the set limit, you are prompted to verify that the upcoming course change is acceptable.

→ ***Note:*** For information about navigation settings, refer to *"Navigation settings"* on page 54.

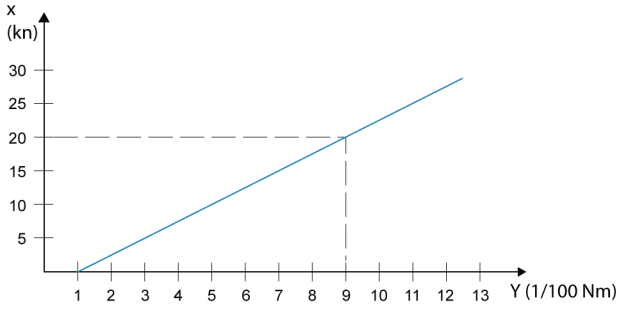
Waypoint arrival circle

The Arrival radius defines the point at which a turn is initiated when you are navigating a route.



The arrival circle (**1**) should be adjusted according to boat speed. The higher the speed, the wider the circle. The intention is to make the autopilot start the heading change in due time to make a smooth turn onto the next leg.

The figure below may be used to select the appropriate waypoint circle when creating the route.



X axis = Boat speed in knots
Y axis = Arrival circle, radius in 1/100 Nm

Example: With the speed of 20 knots you should use a waypoint circle with radius 0.09 Nm.

→ ***Note:*** The distance between any waypoints in a route must not be smaller than the radius of the waypoint arrival circle when using automatic waypoint shift.

WIND mode

→ ***Note:*** The WIND mode is only available if the system has been set up for sailboat in the Autopilot Commissioning dialog.

Before the WIND mode is started it must be verified that valid input from wind transducer is available.

Initiate wind steering as follows;

1. Switch the Autopilot to AUTO mode
2. Adjust the boat heading until wind angle is according to the angle you want to maintain
3. Select the mode indication in the autopilot controller to activate the autopilot menu, and select WIND mode

The set course to steer (CTS) and set wind angle are entered from the compass heading and the wind transducer at the moment the WIND mode is selected. From that point the autopilot changes the course to maintain the wind angle as the wind direction may change.

Tacking in WIND mode

→ ***Note:*** The tack function is only available when the system is set up for boat type SAIL in the Autopilot Commissioning dialog.

Tacking should only be performed into the wind and must be tried out in calm sea conditions with light wind to find out how it works on your boat. Due to a wide range of boat characteristics (from cruising to racing boats) the performance of the tack function may vary from boat to boat.

Tacking in WIND mode as compared to AUTO mode is performed when sailing with apparent or true wind as the reference. The true wind angle should be less than 90 degrees.

The rate of turn during the tack will be given by the Tack time defined in the sailing parameter setup. The tack time is also controlled by the speed of the boat to prevent loss of speed during a tack.

You can initiate the tack function from WIND mode.

When you initiate the tacking, the autopilot immediately mirrors the set wind angle to the opposite side of the bow.

You can interrupt the tack operation as long as the tack dialog is open by selecting the opposite tacking direction. When interrupted, the boat returns to the previous set heading.

Gybing

Gybing is possible when the true wind angle is larger than 120°.

The time to make a gybe is determined by the speed of the boat to make it as quick as possible within control.

Tack and gybe prevent

You should use the autopilot with care when beating and running.

If the sails are unbalanced when beating, yaw forces from the sails can drive the boat into the wind. If the boat is driven beyond the set minimum wind angle, the thrust from the sails suddenly disappears and reduces the boat speed. The boat becomes more difficult to steer as the rudder becomes less effective.

The tack prevent function in WIND mode has been implemented to avoid such situations. It reacts immediately when the apparent wind angle becomes 5° less than the set minimum wind angle, and more rudder is commanded.

When running, it is difficult to steer the boat with waves coming sideways or from behind. The waves can yaw the boat into an unwanted gybe; this can be hazardous for both the crew and the mast.

The gybe prevent function is activated when the actual apparent wind angle becomes greater than 175° or gets opposite to the set wind angle. More rudder is commanded to prevent an unwanted gybe.

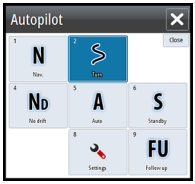
The tack and gybe prevent functions are not a guarantee against getting into a hazardous situation. If the effect of the rudder and/or drive unit is not adequate, a dangerous situation may occur. Pay particular attention in such situations.

WIND Nav mode

In WIND Nav mode the autopilot steers the boat given both wind and position data.

In this mode the autopilot calculates the initial course change needed to navigate towards the active waypoint, but the pilot also utilizes the current wind direction in the calculation.

Turn pattern steering



The autopilot includes a number of automatic turn steering features for power boats when the pilot is in AUTO mode.

→ ***Note:*** The turn steering option is not be available if the boat type is set to SAIL in the Autopilot Commissioning dialog, instead the tack/gybe feature is implemented.

Initiating a turn

You start the turn by selecting the relevant turn icon, followed by selecting the port or starboard options in the turn dialog to select the turn direction.

Turn variables

The turn steering options, except the C-turn, have settings that you can adjust before you start a turn and at any time when the boat is in a turn.

Stopping the turn

You can stop the turn from within the turn dialog.

At any time during a turn you can select STBY in the autopilot pop-up to return to STBY mode and manual steering.

U-turn

U-Turn changes the current set heading to be 180° in the opposite direction.

The turn rate is identical to Rate limit settings. This cannot be changed during the turn.

→ ***Note:*** Refer to the separate GO7 Installation manual for information about Rate limit settings.

C-turn

Steers the vessel in a circle.

You can adjust the Rate of turn from the turn dialog before the turn is initiated and during the turn. Increasing the turn rate makes the vessel turn a smaller circle.

Spiral turn

Spiral-turn makes the vessel turn in a spiral with a decreasing or increasing radius. This feature may be used for circling fish or when searching an object.

You set the initial radius before the turn is initiated, and the change per turn during the turn. If the change per turn is set to zero, the vessel turns in a circle. Negative values indicate decreasing radius while positive values indicate increasing radius.

Zigzag turns

Steers the vessel in a zigzag pattern.

For navigating in a zigzag pattern, you set the initial heading change before the turn is started.

During the turn you can alter the main heading, the heading change, and the leg distance.

Square turn

Makes the vessel automatically turn 90° after having travelled a defined leg distance.

You can at any time during the turn change the main heading and the distance of the leg until the vessel makes a new 90° turn.

Lazy S-turn

Makes the vessel yaw around the main heading.

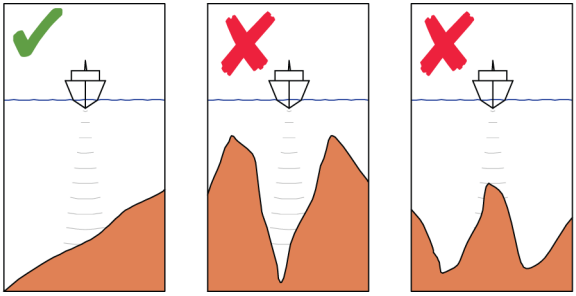
You set the selected heading change before the turn is started.

During the turn you can alter the main heading, the heading change and the turn radius from within the turn dialog.

Depth contour tracking, DCT™

If the system has input from an echosounder, the autopilot can be set to follow a depth contour.

> ⚠ Warning: Do not use this feature unless the seabed is suitable. Do not use it in rocky waters where the depth is varying significantly over a small area.



Use the following process to initiate DCT steering;

1. Ensure that you have depth reading on the panel or on a separate depth instrument
2. Steer the boat to the depth you want to track, and in the direction of the depth contour
3. Activate **AUTO** mode, select depth contour steering and monitor the depth reading
4. Select the port or starboard option in the turn dialog to initiate the depth contour steering to follow the bottom sloping to starboard or to port

The following parameters are available for depth contour tracking:

Depth gain

This parameter determines the ratio between commanded rudder and the deviation from the selected depth contour. The higher depth gain value the more rudder is applied.

If the value is too small, it takes a long time to compensate for drifting off the set depth contour, and the autopilot fails to keep the boat on the selected depth.

If the value is set too high, the overshoot increases and the steering is unstable.

Contour Cross Angle (CCA)

The CCA is an angle that is added to or subtracted from the set course.

With this parameter you can make the boat yaw around the reference depth with lazy-s movements.

The larger the CCA, the bigger yawing is allowed. If you the CCA set to zero there are no lazy-s movements.

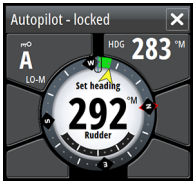
Using the GO7 in an AP24/AP28 system

Command transfer

If your GO7 is connected to an autopilot system including an AP24 or AP28 control unit, only one control unit can be active at the same time. An inactive control unit is indicated with a square with a cross symbol in autopilot controller pop-up.

You take command from an inactive control unit by selecting the mode in the autopilot pop-up, and then confirming active mode.

Locking remote stations

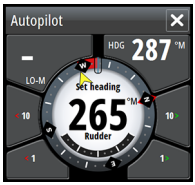


The AP24/AP28 includes a Remote Lock function that disables autopilot control from other units. A locked control unit is indicated with a key symbol in autopilot controller pop-up.

When the remote lock function is enabled on an AP24/AP28 control unit, only the active control unit stays in command. No transfer of command to GO7 or other autopilot control units on the system can take place.

You can only unlock the remote stations from the AP24/AP28 unit in command.

Using the autopilot in an EVC system

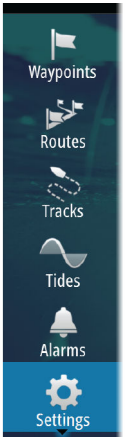


When the GO7 is connected to an EVC system via the SG05, you can take manual control of the steering regardless of the autopilot mode.

The mode indicator on the pilot pop-up is replaced by a dash to indicate EVC override.

The system returns to GO7 control in standby mode if no rudder command is given from the EVC system within a predefined period.

Autopilot settings



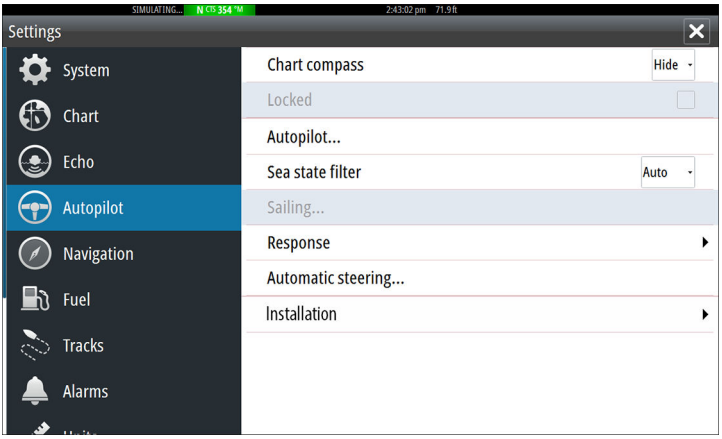
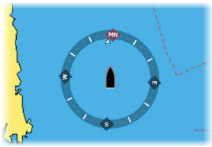


Chart compass



You can select to show a compass symbol around your boat on the chart panel. The compass symbol is off when the cursor is active on the panel.

Locking autopilot operation from a unit

You can lock a GO7 unit to prevent unauthorized operation of the autopilot. When the unit is locked this is indicated with a lock symbol and with text in the pop-up. No automatic modes can be selected from a locked unit.

→ ***Note:*** The lock function is not available on a unit which has autopilot control!

If the GO7 is part of an AP24/AP28 system, all other autopilot control units can be locked for autopilot control from the AP24/ AP28 control unit.

Sea state filter

The Seastate filter is used to reduce rudder activity and autopilot sensitivity in rough weather. Setting options are:

- **OFF**
  Seastate filter is disabled. This is the default setting.
- **AUTO**
  Reduces rudder activity and autopilot sensitivity in rough weather by an adaptive process. The AUTO setting is recommended if you want to use the seastate filter.
- **MANUAL**
  Linked to the steering response control settings described previously. It may be used to manually find the optimum combination of course keeping and low rudder activity in rough but steady sea conditions.

Sailing parameters

→ ***Note:*** Sailing parameter settings are only available if the boat type is set to Sail in the Autopilot Commissioning dialog.

Tack time

When performing a tack in WIND mode, the rate of turn (tack time) can be adjusted. This gives single-handed sailors time to handle the boat and the sails during a tack.

A turn performed without shifting wind side, is also made at a controlled turn rate.

Tack angle

This value is used to preset the course change used when tacking in AUTO mode. By pressing the port and starboard indicators in the autopilot pop-up the course changes as much as this value.

Wind function

With wind function set to AUTO, the autopilot automatically selects between apparent and true wind steering. AUTO is default and recommended for cruising.

When the boat is running, it is also surfing on the waves. This may lead to significant changes in boat speed, and thereby also changes in apparent wind angle. True wind steering is therefore used when running, while steering to apparent wind is used when beating or reaching.

Apparent wind steering is preferred when you want to achieve maximum boat speed. The autopilot tries to maintain a constant apparent wind angle to get maximum thrust from a given trim of the sails.

When sailing in closed waters, the apparent wind angle may change temporarily due to wind gusts. It may then be preferred to sail to the true wind.

VMG optimizing
You can optimize the VMG to wind. When selected, the function is active for 5–10 minutes after a new wind angle has been set and only when beating.

Layline steering
Layline steering is useful when navigating. Cross Track Error (XTE) from the navigator keeps the boat on the track line. If the XTE from the navigator exceeds 0.15 NM, the autopilot calculates the layline and track towards the waypoint.

Response

By default the system switches between HI/LO parameter set based on speed (motor boats) or speed and wind (sail boats). You can however manually select which parameter set that shall be used.

HI or LO must be selected if no speed input is available.

You can manually fine tune each of the two (HI/LO) parameter sets. Level 4 is default with parameter values as set by the autotune function. If no autotune is made (not recommended) the level 4 values are the factory default values.

A low response level reduces the rudder activity and provides a more “loose” steering.

A high response level increases the rudder activity and provides a more “tight” steering. A too high response level causes the boat to start lazy-s movements.

Automatic steering

This option displays an overview of all autopilot steering parameters, and you can adjust parameters if required.

For more details, refer to the separate GO7 Installation manual.

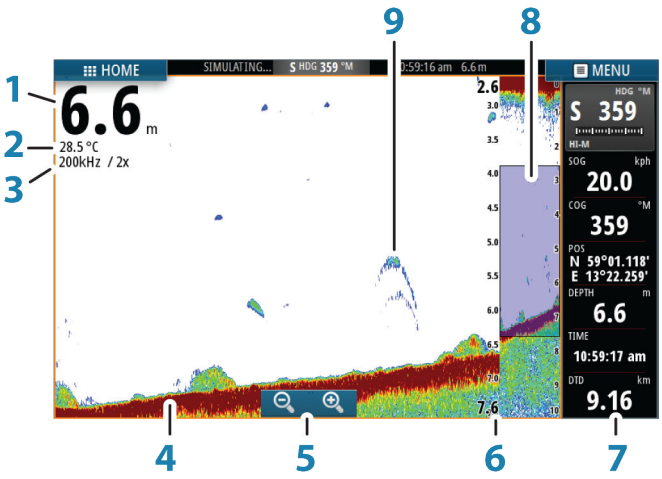
Installation

Used for autopilot installation and commissioning. See the separate GO7 Installation manual.

8 Echosounder

The Echosounder function provides a view of the water and bottom beneath your vessel, allowing you to detect fish and examine the structure of the sea floor.

The Echosounder image



1. Depth
2. Temperature
3. Frequency and Zoom scale
4. Bottom
5. Zoom buttons
6. Depth Range scale
7. Instrument panel
8. Zoom column
9. Fish arches

Using the cursor on the Echosounder panel

The cursor can be used to measure a distance to a target, to mark a position, and to select targets.

By default, the cursor is not shown on the Echosounder image.

When you position the cursor on the Echosounder image; the screen pauses, the depth at the cursor position is shown, and the information window is activated.

To remove the cursor and cursor elements from the panel, select the **Clear cursor** menu option.

GoTo cursor

You can navigate to a selected position on the image by positioning the cursor on the panel, then using the **Goto Cursor** option in the menu.

The Cursor assist function

The cursor assist function allows for fine tuning and precision placement of the cursor without covering details with your finger.

Press and hold your finger on the screen to switch the cursor symbol to a selection circle, appearing above your finger.

Without removing your finger from the screen, drag the selection circle over the desired item to display item information.

When you remove your finger from the screen the cursor reverts to normal cursor operation.

Measuring distance

The cursor can be used to measure the distance between the position of two observations on the image.

It is easier to use the measuring function when the image is paused.

1. Position the cursor on the point from where you want to measure the distance
2. Start the measuring function from the menu
3. Position the cursor on the second measuring point
   - A line is drawn between the measuring points, and the distance is listed in the Information window
4. Continue selecting new measuring points if required

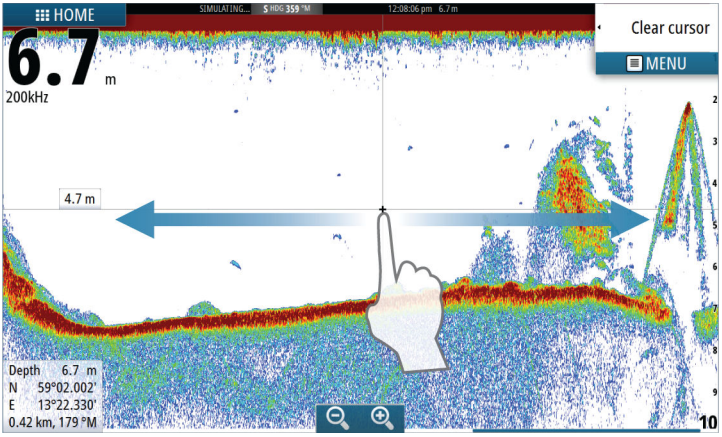
You can use the menu to re-position the start point and the end point as long as the measuring function is active.

When you select **Finish measuring**, the image resumes to normal scrolling.

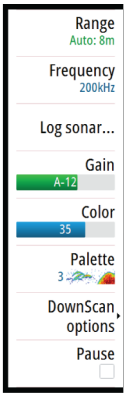
Viewing Echosounder history

You can view echosounder history by panning the image.

To resume normal scrolling, select the **Clear cursor** menu option.



Setting up the Echosounder image



Use the Echosounder menu options to set up the image. When the cursor is active, some options on the Echosounder menu are replaced with cursor mode features. Select **Clear cursor** to return to the normal Echosounder menu.

The range

The range setting determines the water depth that is visible on the screen.

Auto range

By default, the range is set to Auto. With Auto, the system automatically displays the whole range from the water surface to

the bottom. Auto is the preferred setting for most fish finding sonar use.

Preset range levels
Allows for the selection of a specific depth range that is not tied to the depth of the water.

Custom range
This option allows you to manually set both upper and lower range limits.

→ ***Note:*** Setting a custom range puts the sonar in manual mode. If the bottom is well beyond the lower range set, you may lose digital depth.

Echosounder frequency

The GO7 unit supports several transducer frequencies. Available frequencies depend on the transducer model that is connected.

You can view two frequencies at the same time by selecting dual Echosounder panels from the **Home** page.

Log sonar

Select to start and stop recording of Echosounder data. For more information, refer to *"Recording log data"* on page 79.

Gain

The gain controls the sensitivity of the Echosounder. The more you increase the gain, the more details are shown on the image. However, a higher gain setting may introduce more background clutter on the image. If the gain is set too low, weak echoes might not be displayed.

Auto gain

The Auto gain option keeps the sensitivity at a level that works well under most conditions. With the gain in auto mode, you can set a positive or negative offset that gets applied to the auto gain.

Color

Strong and weak Echosounder signals have different colors to indicate the different signal strengths. The colors used depend on which palette you select. The more you increase the Color setting,

the more echoes is displayed in the color at the strong return end of the scale.

Palettes

You can select between several display palettes optimized for a variety of fishing conditions.

DownScan options

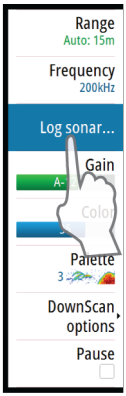
Provides options for specifying the DownScan image. This menu option is available when Overlay downscan is selected in Echo settings dialog. For more information see *"Echosounder settings"* on page 81.

Pausing the Echosounder

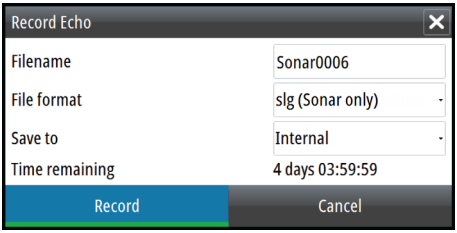
You can pause the Echosounder, allowing you to examine the Echosounder echoes.

This function is useful when you need to position a waypoint exactly on the Echosounder panel, and if you are using the cursor to measure a distance between 2 elements on the image.

Recording log data



You can record data and save the file internally in the unit, or save it onto a card inserted into the unit's card reader. Select the Log sonar menu option, and then Record in the Record Echo dialog.



When the Echosounder data is being recorded, there is a flashing red symbol in the top left corner and a message appears periodically at the bottom of the screen.

Filename

Specify the name of the recording (log).

File format

Select a file format from the drop-down, slg (Echosounder only), xtf (DownScan only*), or sl2 (Echosounder and DownScan).

➔ ***Note:*** XTF format is for use only with select 3rd party Echosounder viewing tools.

Save to

Select whether the recording is to be saved internally or to a memory card in the card reader.

Time remaining

Shows the remaining allocated space available for recordings.

Viewing the recorded sounder data

Both internally and externally stored sounder records may be reviewed when selected.

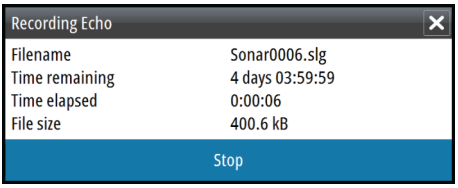
The log file is displayed as a paused image, and you control the scrolling and display from the replay menu option.

You can use the cursor on the replay image, and pan the image as on a normal echo image.

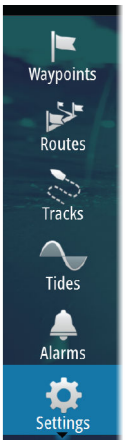
If more than one channel was recorded in the selected echo file, you can select which channel to display.

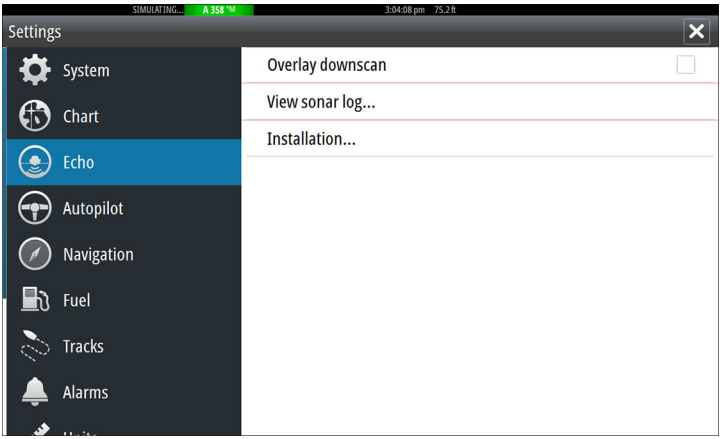
Stop recording log data

Select the Log sonar menu option, and then Stop in the Recording Echo dialog to stop the recording of Echosounder data.



Echosounder settings





Overlay downscan

When a HDI transducer with DownScan is connected to your system, you can overlay DownScan images on the regular Echosounder image.

When activated, the Echosounder menu expands to include basic DownScan options.

View Echosounder log

Used to view Echosounder recordings. The log file is displayed as a paused image, and you control the scrolling and display from the menu.

You can use the cursor on the image, measure distance, and set view options as on a live Echosounder image. If more than one channel was recorded in the selected Echosounder file, you can select which channel to display.

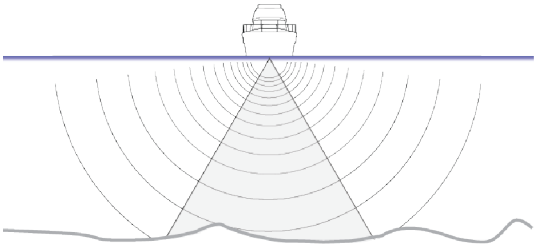
You exit the view function by selecting the **X** in the upper right corner.

Installation

Used for installation and setup. See the separate GO7 Installation manual.

9 DownScan

DownScan provides detailed images of structure directly below your boat, down to 92 m (300 ft). The DownScan page is accessed from the Home page when the DownScan transducer is connected.



The DownScan image

1. Depth
2. Temperature
3. Frequency
4. Zoom buttons
5. Range scale

Zooming the DownScan image

You can zoom a DownScan image by using the panel zoom icons.

Using the cursor on the DownScan panel

By default, the cursor is not shown on the DownScan image.

When you tap the screen the cursor appears, the information window is activated, the depth is shown at the cursor position, and the image stops scrolling.

To remove the cursor and cursor elements from the panel, select the **Clear cursor** option.

GoTo cursor

You can navigate to a selected position on the image by positioning the cursor on the panel, then using the **Goto Cursor** option in the menu.

Measuring distance

The cursor can be used to measure the distance between the position of two observations on the image.

It is easier to use the measuring function when the image is paused.

1. Position the cursor on the point from where you want to measure the distance
2. Start the measuring function from the menu
3. Position the cursor on the second measuring point
   - A line is drawn between the measuring points, and the distance is listed in the Information window
4. Continue selecting new measuring points if required

You can use the menu to re-position the start point and the end point as long as the measuring function is active.

When you select **Finish measuring**, the image resumes to normal scrolling.

Viewing DownScan history

You can pan the image history by dragging the image to the left and right.

To resume normal DownScan scrolling, select the **Clear cursor** option.

Setting up the DownScan image

Use the DownScan menu to set up the image. When the cursor is active, some options in the menu are replaced with cursor mode features. Select **Clear cursor** to return to the normal menu.

Range

The range setting determines the water depth that is visible on the image.

Auto range

By default, the range is set to Auto. With Auto, the system automatically displays the whole range from the water surface to the bottom.

Preset range levels

Allows for the selection of a specific depth range that is not tied to the depth of the water.

Frequency

DownScan can be used at 800 kHz or 455 kHz. 800 kHz provides the highest resolution with less range. 455 kHz has the best range, but with lower resolution.

Contrast

The contrast determines the brightness ratio between light and dark areas of the screen. This makes it easier to distinguish object from the background.

Drag the bar up or down to get the desired contrast setting or select Auto contrast.

Palettes

You can select between several display palettes optimized for a variety of fishing conditions.

Record DownScan data

You can record DownScan data and save the file internally in the unit, or onto a memory card in the card reader slot as described in *"Recording log data"* on page 79.

Pausing the DownScan image

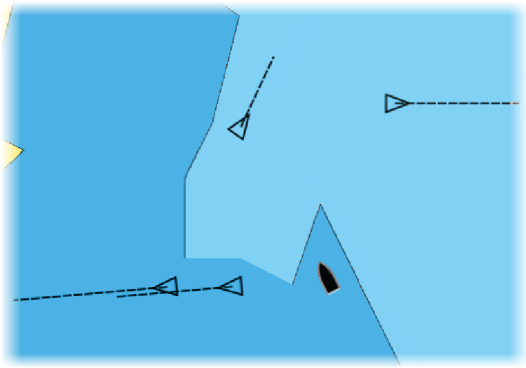
You can pause the DownScan image, allowing you to examine the structures and other images in more detail.

This function is useful when you need to position a waypoint precisely on the DownScan image, and if you are using the cursor to measure a distance between 2 elements on the image.

10 AIS

If an NAIS400, an AI50 or an NMEA 2000 VHF that can do AIS (Automatic Identification System) is connected to the network, then any targets detected by these devices can be displayed and tracked. You can also see messages and position for DSC transmitting devices within range.

AIS targets can be displayed as overlay on chart images, making this feature an important tool for safe travelling and collision avoidance. You can set alarms to notify you if an AIS target gets too close or if the target is lost.



AIS target symbols

The system uses the AIS target symbols shown below:

Symbol	Description
	Sleeping AIS target (not moving or at anchor).
	Moving and safe AIS target with course extension line.
	Dangerous AIS target, illustrated with bold line. A target is defined as dangerous based on the CPA and TCPA settings. Refer to *"Defining dangerous vessels"* on page 94.

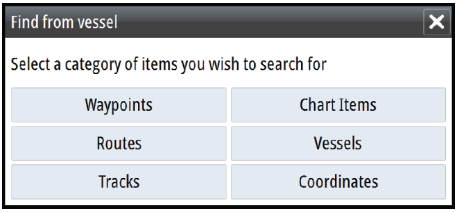
Symbol	Description
	Lost AIS target. When no signals have been received within a time limit, a target is defined as lost. The target symbol represents the last valid position of the target before the reception of data was lost.
	Selected AIS target, activated by selecting a target symbol. The target returns to the default target symbol when the cursor is removed from the symbol.

Viewing information about AIS targets

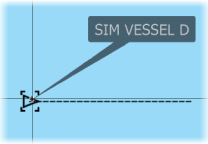
Searching for AIS items

You can search for AIS targets by using the **Find** option in the Tools panel.

From a chart panel you can search for AIS targets by using the **Find** option in the menu. If the cursor is active, the system searches for vessels around the cursor position. Without an active cursor, the system searches for vessels around your vessel's position.

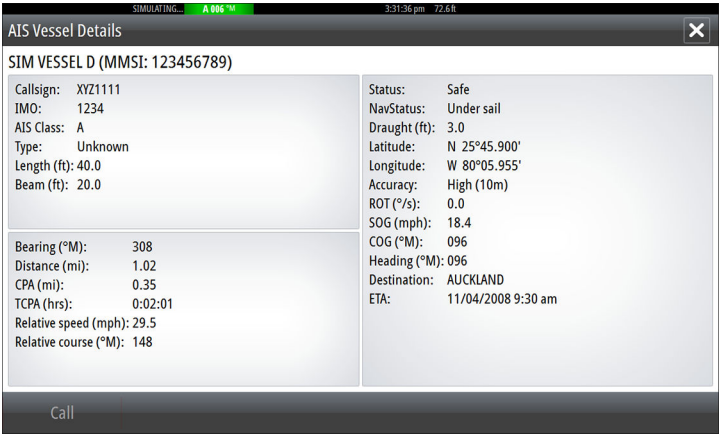


Viewing information about single AIS targets



When you select an AIS icon on the chart panel the symbol changes to Selected target symbol, and the vessel's name is displayed.

You can display detailed information for a target by selecting the AIS pop-up, or from the menu when the target is selected.

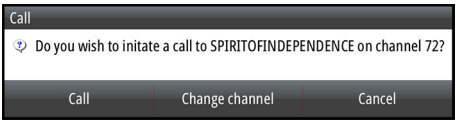


Calling an AIS vessel

If the system includes a VHF radio supporting DSC (Digital Select Calling) calls over NMEA 2000, you can initiate a DSC call to other vessels from the GO7.

The call option is available in the **AIS Vessel Details** dialog, and in the **Vessel** status dialog activated from the **Tools** panel.

From the **Call** dialog you can change channel or cancel the call. The **Call** dialog is closed when the connection is established.



AIS SART

When an AIS SART (Search and Rescue beacon) is activated, it starts transmitting its position and identification data. This data is received by your AIS device.

If your AIS receiver is not compliant with AIS SART, it interprets the received AIS SART data as a signal from a standard AIS transmitter. An icon is positioned on the chart, but this icon is an AIS vessel icon.

If your AIS receiver is compliant with AIS SART, the following takes place when AIS SART data is received:

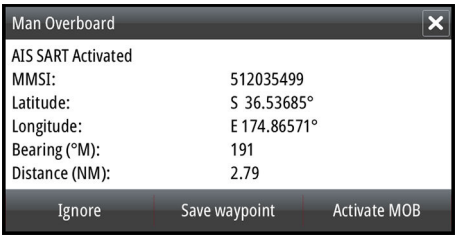
- An AIS SART icon is located on the chart in the position received from the AIS SART
- An alarm message is displayed

If you have enabled the siren, the alarm message is followed by an audible alarm.

→ ***Note:*** The icon is green if the received AIS SART data is a test and not an active message.

AIS SART alarm message

When data is received from an AIS SART, an alarm message is displayed. This message includes the AIS SART's unique MMSI number, and its position, distance, and bearing from your vessel.



You have three options:

1. Ignore the alarm
   - The alarm is muted and the message closed. The alarm does not reappear
2. Save the waypoint
   - The waypoint is saved to your waypoint list. This waypoint name is prefixed with MOB AIS SART - followed by the unique MMSI number of the SART. For example, MOB AIS SART - 12345678.
3. Activate the MOB function
   - The display switches to a zoomed chart panel, centered on the AIS SART position
   - The system creates an active route to the AIS SART position

When data is received from an AIS SART, an alarm message is displayed. This message includes the AIS SART's unique MMSI number, its position and its distance and bearing from your vessels.

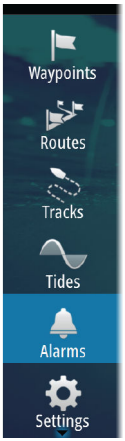
If you select the AIS SART icon on the chart panel, then you can see the AIS MOB details.

→ ***Note:*** If the MOB function is already active, this will be terminated and replaced by the new route towards the AIS SART position!

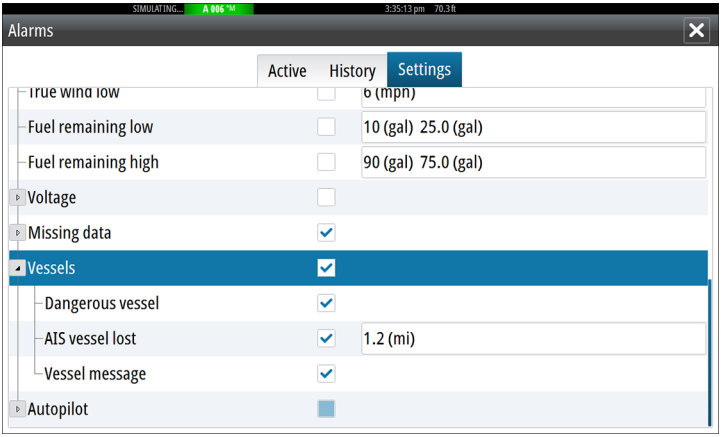
→ ***Note:*** If you ignore the alarm, the AIS SART icon remains visible on your chart, and the AIS SART remains in the Vessels list.

→ ***Note:*** If the AIS stops receiving the AIS SART message, the AIS SART remains in the Vessels list for 10 minutes after it receives the last signal.

Vessel alarms



You can define several alarms to alert you if a target shows up within predefined range limits, or if a previously identified target is lost.



Dangerous vessel

Controls whether an alarm will be activated when a vessel comes within the predefined CPA or TCPA. Refer to *"Defining dangerous vessels"* on page 94.

AIS vessel lost

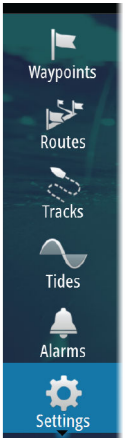
Sets the range for lost vessels. If a vessel is lost within the set range, an alarm occurs.

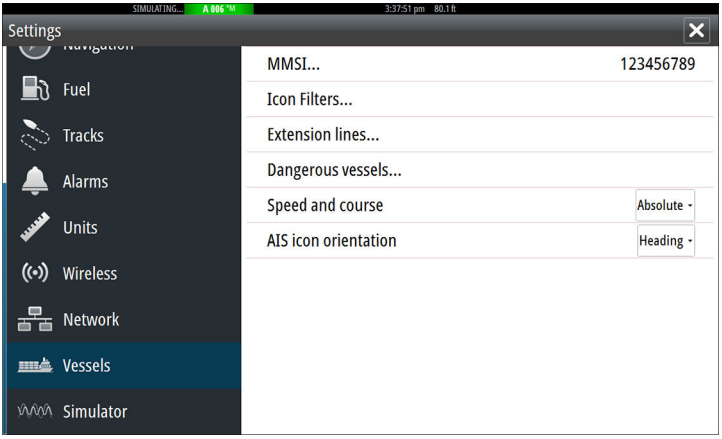
→ ***Note:*** The check box controls whether the alarm pop-up box is displayed and if the siren goes on. The CPA and TCPA define when a vessel is dangerous regardless of the enabled or disabled state.

Vessel message

Controls whether an alarm will be activated when a message is received from an AIS target.

Vessel settings





Your vessel's MMSI number

You need to have your own MMSI (Maritime Mobile Service Identity) number entered in the system to receive addressed messages from AIS and DSC vessels.

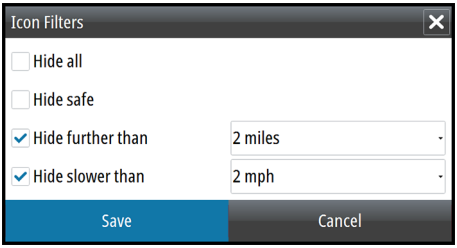
It is also important to have the MMSI number entered to avoid seeing your own vessel as an AIS target on the chart.

→ ***Note:*** The Vessel message option in the alarm settings must be toggled on for any MMSI message to be displayed.

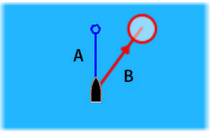
Icon filters

By default, all targets are shown on the panel if an AIS device is connected to the system.

You can select not to show any targets, or to filter the icons based on security settings, distance, and vessel speed.



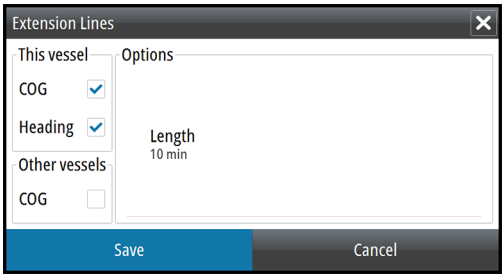
Extension lines



The length of the extension lines for your vessel and for other vessels can be set by the user.

- A: Heading
- B: Course Over Ground (COG)

The length of the extension lines is either set as a fixed distance, or to indicate the distance the vessel will move in the selected time period. If no options are turned on for **This vessel** then no extension lines are shown for your vessel.

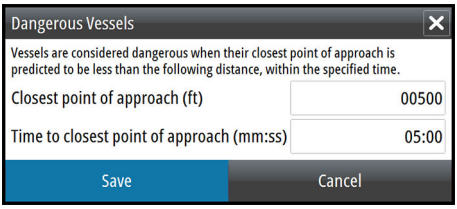


Your own vessel heading information is read from the active heading sensor, and COG information is received from the active GPS.

For other vessels COG data is included in the message received from the AIS system.

Defining dangerous vessels

You can define an invisible guard zone around your vessel. When a target comes within this distance, the symbol changes to the “dangerous” target symbol. An alarm is triggered if activated in the Alarm settings panel.

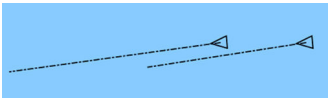

Dangerous Vessels
Vessels are considered dangerous when their closest point of approach is predicted to be less than the following distance, within the specified time.
Closest point of approach (ft)
00500
Time to closest point of approach (mm:ss)
05:00
Save
Cancel

Speed and course indication

The extension line can be used to indicate speed and course for targets, either as absolute (true) motion in the chart or relative to your vessel.

A different line style is used on the extension lines to indicate motion, as shown below.

AIS vessels shown with Absolute motion



AIS vessels shown with Relative motion

AIS icon orientation

Sets the orientation of the AIS icon, either based on heading or COG information.

11 Instrument panels

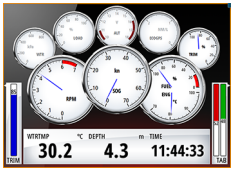
The Instruments panels consist of multiple gauges - analog, digital and bar - that can be customized to display selected data. The Instruments panel displays data on dashboards, and you can define up to ten dashboards within the Instruments panel.

→ ***Note:*** To include fuel/engine information, engine and tank information has to be configured from the Settings panel.

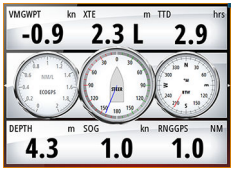
Dashboards

A set of dashboard styles are predefined to display vessel, navigation, and angler information.

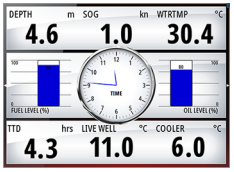
You switch between the panel's dashboards by selecting the left and right arrow buttons on the panel. You can also select the dashboard from the menu.



Vessel dashboard



Navigation dashboard



Angler dashboard

→ ***Note:*** Additional dashboards can be activated from the menu if other systems (e.g. CZone) are present on the network.

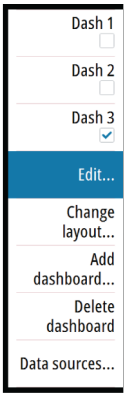
Customizing the Instruments panel

You can customize the Instruments panel by changing the data for each of the gauges in the dashboard, by changing the dashboard layout, and by adding new dashboards. You can also set limits for analog gauges.

All edit options are available from the Instruments panel menu.

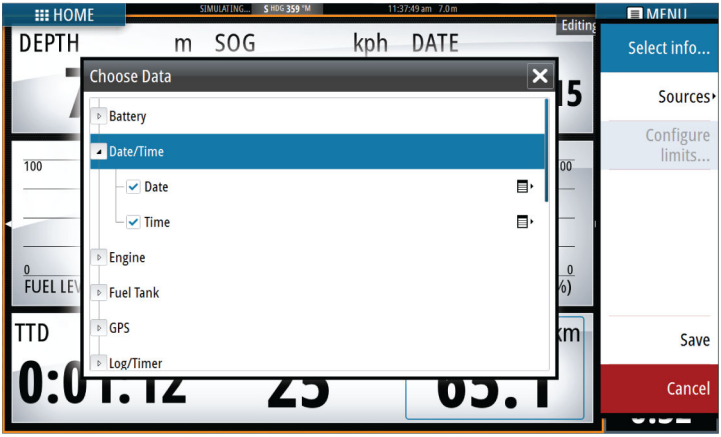
Available editing options depends on which data sources are connected to your system.

Edit a dashboard



Activate the dashboard you want to edit, then:

1. Activate the menu.
2. Select the edit option.
3. Select the gauge you want to change. Selected gauge is indicated with a blue background.
4. Select information to be displayed, configure limits, and eventually change the source for the information.
5. Save your changes by selecting the save option in the menu.



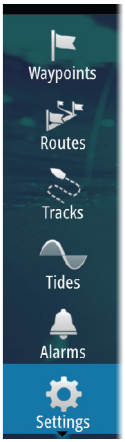
12 Audio

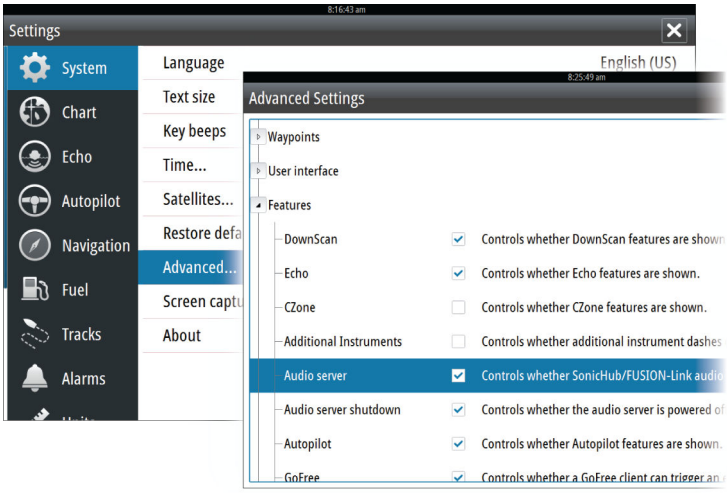
If a SonicHub server or a FUSION marine entertainment system is connected to the NMEA 2000 network, you can use the GO7 to control and customize the audio system on your vessel.

Before you can start using your audio equipment, it must be installed according to the GO7 Installation manual and to the documentation included with the audio device.

Enabling audio

A compatible audio device connected to the NMEA 2000 network should automatically be identified by the system. If not, enable the feature from the **Advanced Settings** dialog.

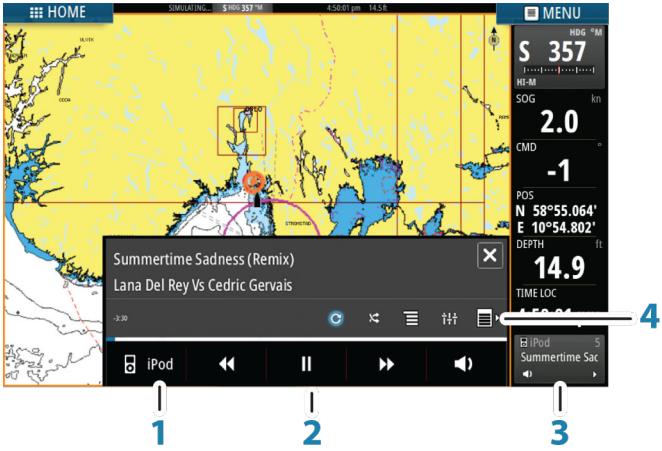




The Audio panel

You activate the audio panel by activating the audio tile in the Instrument bar.

The control buttons, tools and options vary from one audio source to another as described later in this chapter.



1 Audio source
2 Audio control buttons
3 Audio tile
4 Audio tools

Audio control buttons

Icon	Tuner	VHF	DVD	Playback
iPod	Select to display the list of available sources			
	Select to select previous/ next frequency Press and hold to tune in a channel		Select to rewind/play fast forward	Select to select previous/ next track
	Select to select next/ previous favorite channel		N/A	N/A
	N/A	N/A	Select to start	
	N/A	N/A	Select to pause playback	

Icon	Tuner	VHF	DVD	Playback
	Select to display the volume slider			

Audio tools

Icon	Tuner	VHF	Playback
	Signal strength	N/A	N/A
	N/A	N/A	Select to toggle on/off repeat function. The icon is colored when the function is active.
	N/A	N/A	Select to toggle on/off shuffle mode. The icon is colored when the function is active.
	Select to display menus used for setting up zones and master control		
	Select to display the favorite stations for the tuner	Select to display the favorite channels for the VHF	Select to display the native menu for active source
	Select to display optional settings for active source		

Setting up the audio system

The speakers

Speaker zones

The GO7 can be set up to control different audio zones. The number of zones depends on the audio server connected to your system.

You can adjust balance, volume and volume limit settings individually for each zone. Adjustments to the bass and tremble settings will alter all zones.

Master volume control

By default the volume for all speaker zones are adjusted when you adjust the volume. You can define which zones will be altered when you increase/decrease the volume.

Selecting tuner region

Before playing FM or AM radio, and using a VHF radio, you must select the appropriate region for your location.

Detaching Sirius from the AUX source

If a Sirius radio is connected to the FUSION radio/server, the AUX source is automatically attached to the Sirius feed. **Sirius** then appears in the source list when the FUSION server is active.

To use the AUX source for a different device, the Sirius must be detached from the AUX source.

→ ***Note:*** To use SiriusXM, an optional SiriusXM tuner must be connected to the FUSION server.

Operating the audio system

1. Select the Audio tile in the Instrument bar to activate the Audio overlay
2. Select the options icon and then select the audio server
3. Select the source icon and then select the audio source
   - Number of sources depends on the active audio server
4. Use the panel buttons to control your audio system

For an overview of audio control buttons and tools, refer to *"Audio control buttons"* on page 98 and *"Audio Tools"* on page 99.

For available options, refer to the documentation following your audio equipment.

Favorite channels

When a tuner or VHF channel is tuned in, you can add the channel to your favorite list. The favorite channels can be viewed, selected and deleted from within the Favorite list.

You page through favorite channels by using the up/down audio panel buttons.

Sirius radio (North America only)

Channels list
The channels list displays all available Sirius channels, whether or not you have a subscription for the channel.

Favorites list
You can create a list of your favorite Sirius channels from within the channels list. You cannot add unsubscribed channels.

Locking channels
You can lock selected Sirius channels from being broadcasted. A 4-digit-code must be entered to lock channels and the same code entered to unlock the channels.

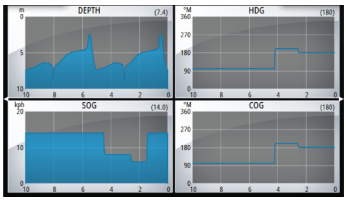
13 Time plots

The GO7 can present data history in different plots. The plots can be displayed in full page, or combined with other panels.

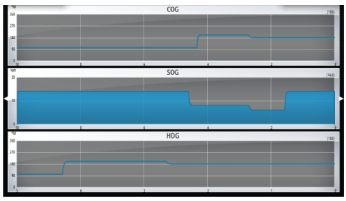
The Time plot panel

The Time plot panel consists of two predefined layouts. You switch between the layouts by selecting the left and right panel arrows. You can also select the layout from the menu.

You can select which data to present on a time plot panel, and you can define the time range for each plot.



Layout 1



Layout 2

Missing data

If the data is unavailable, the relevant plot turns into a dashed line and flattens out at the point the data was lost. When the data becomes available again, a dashed line joins up the two points showing an average trend line bridging the missing data.

Selecting data

Each data field can be changed to show the preferred data type and the time range.

1. Select the edit option from the menu
2. Activate the field you want to edit
3. Change the information type and eventually the range
4. Save your changes

The data available for the Time plots are by default the sources used by the system. If more than one data source is available for a data type you can select to show alternative data source in the Time plot. You change the data type by using the data source option in the menu.

14 Alarms

Alarm system

The system continuously checks for dangerous situations and system faults while the system is running. When an alarm situation occurs, an alarm message pops up on the screen.

If you have enabled the siren, the alarm message is followed by an audible alarm, and the switch for external alarm becomes active.

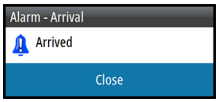
The alarm is recorded in the alarm listing so that you can see the details and take the appropriate corrective action.

Type of messages

The messages are classified according to how the reported situation affects your vessel. The following color codes are used:

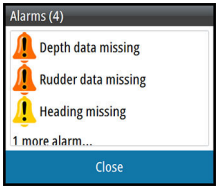
Color	Importance
Red	Critical
Orange	Important
Yellow	Standard
Blue	Warning
Green	Light warning

Single alarms



A single alarm is displayed with the name of the alarm as the title, and with details for the alarm.

Multiple alarms



If more than one alarm is activated simultaneously, then the alarm message displays a list of up to 3 alarms. The alarms are listed in the order they occur with the alarm activated first at the top. The remaining alarms are available in the Alarms dialog.

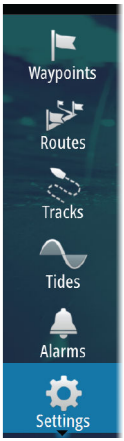
Acknowledging a message

The following options are available in the alarm dialog for acknowledging a message:

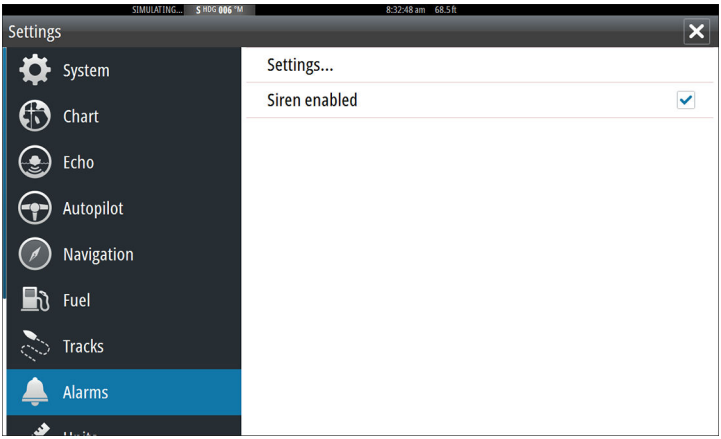
- **Close**
  Sets the alarm state to acknowledged, meaning that you are aware of the alarm condition. The siren / buzzer stops and the alarm dialog is removed.
  However, the alarm remains active in the alarm listing until the reason for the alarm has been removed.
- **Disable**
  Disables the current alarm setting. The alarm does not show again unless you turn it back on in the Alarms dialog.

There is no time-out on the alarm message or siren. They remain until you acknowledge the alarm or until the reason for the alarm is removed.

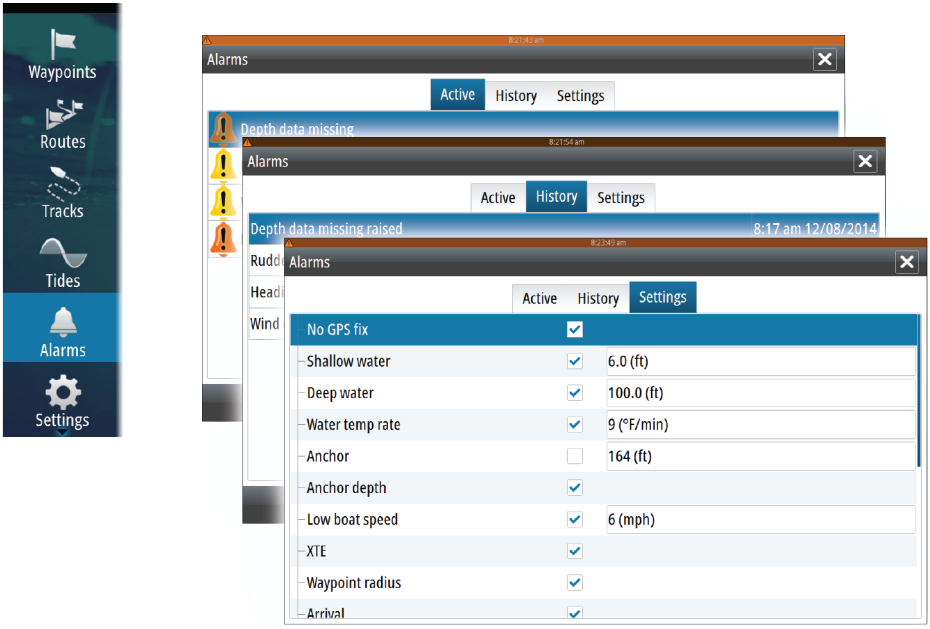
Alarms dialog



All alarms are setup in the Alarms Settings dialog.



The alarm dialogs can also be activated from the Tools panel. The alarm dialogs include information about active alarms and alarm history.

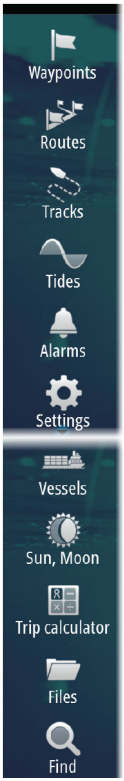

Waypoints
Routes
Tracks
Tides
Alarms
Settings
Alarms
Active
History
Settings
Depth data missing
Alarms
Active
History
Settings
Depth data missing raised
8:17 am 12/08/2014
Alarms
Active
History
Settings
No GPS fix
Shallow water
6.0 (ft)
Deep water
100.0 (ft)
Water temp rate
9 (°F/min)
Anchor
164 (ft)
Anchor depth
Low boat speed
6 (mph)
XTE
Waypoint radius
Arrival

15 Tools

By default, the Tools panel includes icons used for accessing options and tools that are not specific to any panel.

When external equipment is integrated to the GO7, new icons might be added to the Tools panel. These icons are used for accessing the external equipment's features.

Waypoints/routes/tracks



List of waypoints, routes, and tracks with details.

Select the waypoint, route, or track you wish to edit or delete.

Tides

Displays tide information for the tide station nearest to your vessel.

Select the arrow panel buttons to change the date, or select the date field to access the calendar function.

Available tide stations can be selected from the menu.

Alarms

Active alarms
List of active alarms.

Alarm history
List of all alarms with time stamp.

Alarm settings
List of all available alarm options in the system, with current settings.

Settings

Provides access to application and system settings.

Vessels

Status listing
List of all AIS and DSC vessels with available information.

Message listing
List of all messages received from other AIS vessels with time stamp.

Sun, Moon

Displays sunrise, sunset, moonrise and moonset for a position based on entered date and the position's latitude/longitude.

Trip calculator

Trip 1 / Trip 2
Displays voyage and engine information, with reset option for all data fields.

Today
Displays voyage and engine information for current date. All data fields are automatically reset when the date changes.

Files

File management system for Files, Waypoints, Routes, Tracks, and Settings.

Copying files to a card in the card reader

You can copy screen captures and logs to a card in the card reader. You can also export System Settings, Waypoints, Routes, and Tracks to a card. Exporting files is covered in the section *"Maintenance"* on page 110.

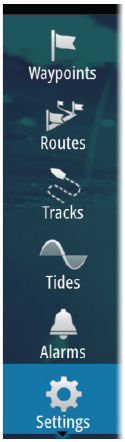
Find

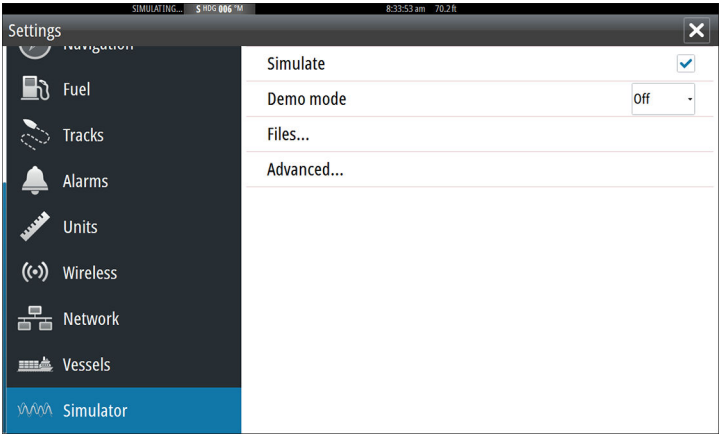
Search function for chart items (waypoints, routes, tracks, etc.).

16 Simulator

The simulation feature lets you see how the unit works in a stationary position and without being connected to the Echosounder, GPS, etc.

Use the simulator to become familiar with your unit before using it on the water.





The status bar indicates if the simulator is toggled on.

Demo mode

In this mode the unit automatically runs through the main features of the product; it changes pages automatically, adjusts settings, opens menus, and so on.

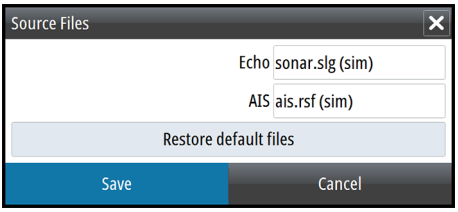
If you tap on the touchscreen when demo mode is running, the demonstration pauses. After a time-out period, demo mode resumes and any changed settings are restored to default.

→ *Note:* Demo mode is designed for retail/showroom demonstrations.

Simulator source files

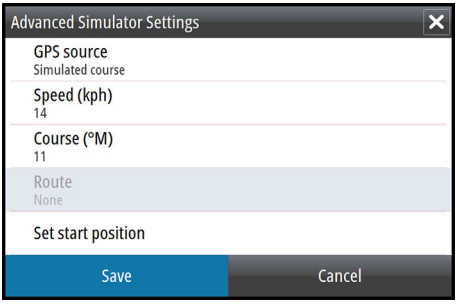
You can select which data files are used by the simulator. A set of source files is included in your system, and you can import files by

using a card inserted into the card reader. You can also use your own recorded files in the simulator.



Advanced simulator settings

The Advanced simulator settings allows for manually controlling the simulator.



GPS source

Selects where the GPS data is generated from.

Speed, Course and Route

Used for manually entering values when GPS source is set to Simulated course or Simulated route. Otherwise, GPS data including speed and course come from the selected source file.

Set start position

Moves your vessel to the current cursor position.

→ ***Note:*** This option is only available when the GPS source is set to Simulated course.

17 Maintenance

Preventive maintenance

The GO7 does not contain any field serviceable components, therefore the operator is required to perform only a very limited amount of preventative maintenance.

Cleaning the display unit

A proper cleaning cloth should be used to clean the screen, where possible. Use plenty of water to dissolve and take away salt remains. Crystalized salt may scratch the coating if using a damp cloth. Apply minimal pressure to the screen.

Where marks on the screen cannot be removed by the cloth alone, use a 50/50 mixture of warm water and isopropyl alcohol to clean the screen. Avoid any contact with solvents (acetone, mineral turpentine, etc.), or ammonia based cleaning products, as they may damage the anti-glare layer or plastic bezel.

To prevent UV damage to the plastic bezel, it is recommended that the sun cover be fitted when the unit is not in use for an extended period.

Cleaning the media port door

Clean the media port door regularly to avoid salt crystallization on the surface, causing water to leak into the card slot.

Checking the connectors

The connectors should be checked by visual inspection only.

Push the connector plugs into the connector. If the connector plugs are equipped with a lock, ensure that it is in the correct position.

Software upgrades

The latest software for the GO7 is available for download from our website, simrad-yachting.com.

Detailed instructions for how to install the software are included in the upgrade files.

Backing up your system data

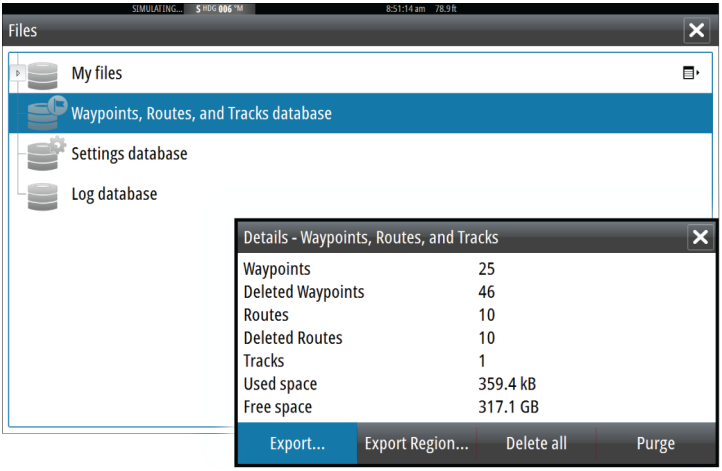
Waypoints, Routes, and Tracks that you create are filed in your system. It is recommended to regularly copy these files and your system settings files as part of your back-up routine. The files can be copied to a card inserted in the card reader.

There are no export file format options for the system settings file. The following output formats are available for exporting Waypoints, Routes, and Tracks files:

- **User Data File version 5**
  This is used to import and export waypoints and routes with a standardized universally unique identifier (UUID), which is very reliable and easy to use. The data includes such information as the time and date when a route was created, and so on.
- **User Data File version 4**
  This is best used when transferring data from one system to another, since it contains all the extra bits of information these systems store about items.
- **User Data file version 3 (w/depth)**
  Should be used when transferring user data from one system to a legacy product (Lowrance LMS, LCX, and so on.)
- **User data file version 2 (no depth)**
  Can be used when transferring user data from one system to a legacy product (Lowrance LMS, LCX, and so on.)
- **GPX (GPS Exchange, no depth)**
  This is the format most used on the web that shares among most GPS systems in the world. Use this format if you are taking data to a competitors unit.
- **Northstar.dat (no Tracks)**
  Used to transfer data to a legacy Northstar device.

Export all Waypoints, Routes and Tracks

Use the export option if you want to backup all Waypoints, Routes, and Tracks on your system.



Export region

The export region option allows you to select the area from where you want to export data.

1. Drag the boundary box to define the desired region
2. Select the export option from the menu
3. Select the appropriate file format
4. Select Export to start the export

Purging Waypoints, Routes and Tracks

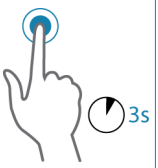
Deleted Waypoints, Routes and Tracks are stored in the GO7 memory until the data is purged. If you have numerous deleted, unpurged Waypoints, purging may improve the performance of your system.

→ ***Note:*** When user data is purged from the memory, it cannot be recovered.

18 Touchscreen operation

Basic touchscreen operation on the different panels is shown in the table below.

The panel sections in this manual have more information about panel specific touchscreen operation.

Icon	Description
	Tap to: • Activate a panel on a multi-panel page • Position the cursor on a panel • Select a menu and a dialog item • Toggle a checkbox option on or off • Show basic information for a selected item
	Press and hold: • On any panel with a cursor to activate the cursor assist feature • On a panel button to see available split screen options • On a favorite button to enter edit mode
	Scroll through a list of available options without activating any option.
	Flick to quickly scroll through e.g. the waypoint list. Tap the screen to stop the scrolling.
	Pan to position a chart or Echosounder image on the panel.

Icon	Description
	Pinch to zoom out on the chart or on an image.
	Spread to zoom in on the chart or on an image.

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